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No. 12846

2677

United States
Court of Appeals
for the Ninth Circuit.

CHARLES D. BRONSON, JR.,

Appellant,

vs.

HUGH EARLE, Collector of Internal Revenue for
the District of Oregon and United States of
America,

Appellees.

Transcript of Record

Appeal from the United States District Court
for the District of Oregon

FILED

MAY 15 1951

PAUL H. O'BRIEN

CLERK

No. 12846

United States
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for the Ninth Circuit.

CHARLES D. BRONSON, JR.,

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[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in italic; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in italic the two words between which the omission seems to occur.]

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OF RECORD

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THOMAS WINTER,
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In the District Court of the United States
For the State of Oregon
No. Civ. 5299

CHARLES D. BRONSON, JR.,

Plaintiff,

vs.

HUGH EARLE, Collector of Internal Revenue and
The United States of America,

Defendants.

PRE-TRIAL ORDER

The cause coming on for pre-trial before Hon. James Alger Fee, United States District Judge, on July 10, 1950, plaintiff being represented by Warde H. Erwin, of his counsel, and defendant being represented by Victor E. Harr, Ass't United States Attorney.

Based upon proceedings had at said pre-trial, it is hereby

Ordered, that the following matters are admitted as to the issues framed by the Complaint herein and by the Answer to the Complaint.

I.

Defendant, Collector Hugh Earle, to whom \$6281.89 of tax sought to be recovered was paid was at the time of payment of said sum and now is the duly acting, constituted and appointed Collector of Internal Revenue.

II.

Collector of Internal Revenue to whom \$19,415.25 of the tax sought to be recovered was at the time of commencement of this action not in office.

III.

That plaintiff did report and pay to the former Collector of Internal Revenue on or before the due date the following taxes on income for the years in question as shown:

1944	\$10,118.03
1945	11,218.19
1946	28,317.97

IV.

That on May 13, 1947, plaintiff did pay to said former Collector the sum of \$19,415.25 for holding in suspense and without application to tax liability.

V.

That on or about the 21st day of October, 1947, Commissioner of Internal Revenue proposed deficiency of income taxes against plaintiff for the tax years of 1944, 1945, 1946.

1944	\$ 9,678.23
1945	10,488.93
1946	23,339.51

VI.

That on the 17th day of November, 1947, plaintiff did duly and regularly file his protest against said proposed deficiency.

VII.

That thereafter and on the 16th day of Feb., 1949, an assessment of additional income tax due was made against plaintiff in the sum of \$6,240.36, plus interest in the sum of \$21.53, which was assessed, and satisfied as follows:

	Assessment	Payments
1944	\$9,678.23	
Interest	2,146.71	
Overassessment of plaintiff's wife		\$4,298.60
Less 5/13/47 deposit		6,633.95
Less interest abatement		892.39
1945	10,488.93	
Interest	1,697.19	
Overassessment as above		5,530.67
Less 5/13/47 deposit		5,757.60
Less interest abatement		897.85
1946	23,339.51	
Interest	2,376.15	
Overassessment as above by		12,451.62
Less paid		7,023.68
Bal. of tax due \$6,240.36 plus 1949 Int. \$21.53.....	\$6,261.89	

VIII.

That plaintiff's wife reported during the years 1944, 1945, 1946 the following taxes on reported income:

1944	\$ 4,298.60
1945	5,530.67
1946	12,451.62

which said payments were with her consent applied as shown in the preceding paragraph.

IX.

That said assessments of additional income taxes against plaintiff resulted principally from the commissioner's determination that the amounts reported in the income tax returns of plaintiff's wife for the years 1944, 1945 and 1946 should be taxed to plaintiff, such reported income, the source and amounts of such reported income is as follows:

	Parkdale	Ashbaugh
1944	\$15,161.97
1945	14,705.50	1,951.86
1946	26,471.79	6,209.41

X.

Plaintiff did on the 10th day of May, 1949, file claim for refund of the amounts herein sought to be recovered, which claims were denied by Commissioner of Internal Revenue on December 19, 1949.

XI.

That if judgment is in favor of plaintiff, that the parties will compute and agree on the amount of the award or that such amount may be fixed by subsequent order of the Court.

It is further ordered that the contested issue to be submitted for determination is as follows:

I.

Whether the Commissioner of Internal Revenue erred in determining that certain income from Parkdale Lumber Co., Oreg., Ltd. and Ashbaugh Shingles and Shakes should be taxed to plaintiff rather than to plaintiff's wife.

Contentions of Plaintiff

In connection with the contested issue framed by this order, plaintiff contends as follows:

I.

Plaintiff contends that the Commissioner of Internal Revenue erred in assessing to and collecting from plaintiff additional income taxes based on the allocation of income reported to the Commissioner by plaintiff's wife as her income from Parkdale Lumber Co., Oreg., Ltd. and Ashbaugh Wood Shingles and Shakes for the years 1944, 1945 and 1946.

II.

That the aforesaid assessments were illegally, erroneously and wrongfully assessed and collected.

III.

That where a husband has no interest in or control over a partnership then the income therefrom may not be taxed to him as to the income from Ashbaugh Wood Shingles and Shakes.

IV.

That the plaintiff, plaintiff's wife, R. C. Roles and Mrs. Janet Roles did intend to and did with a business purpose join together in the conduct of a business enterprise.

Contentions of Defendants

I.

The Commissioner of Internal Revenue properly

taxed the plaintiff on one-half of the income from the Parkdale Lumber Co. for the years 1944, 1945 and 1946.

II.

The Commissioner of Internal Revenue properly taxed the plaintiff on amounts paid by Ashbaugh Wood Shingles and Shakes to Mildred P. Bronson during the taxable years 1945 and 1946.

III.

That the burden is upon the plaintiff to prove that the purported partnership known as the Parkdale Lumber Co. was of sufficient substance, insofar as the purported interest of Mildred P. Bronson is concerned, to be recognized for income tax purposes.

IV.

That the burden is upon the plaintiff to prove that the amounts paid to Mildred P. Bronson during the years involved by the Ashbaugh Wood Shingles and Shakes, a purported partnership, did not constitute in substance an assignment of income by taxpayer, taxable to him.

Exhibits

It Is Ordered that the parties may offer in evidence at the trial of this action any and all of the following pre-trial exhibits without further identification or authentication, each of the parties, however, having reserved the right to object on other grounds to the admission in evidence of any or all said exhibits, to wit:

It is further ordered and agreed that this pre-trial order will govern the course of the trial and will not be amended, except by consent or to prevent manifest injustice. This pre-trial order will take the place of the pleadings. The parties agree to waive a jury and have the case tried before the Court sitting without a jury.

The Court, finding that the foregoing clearly and accurately reflects the pre-trial conference had herein and the stipulations and agreements of the parties, hereby ratifies and confirms the foregoing proceedings in all things and does hereby

Order that the said pre-trial order be and the same is hereby incorporated into and hereby made a part of the record in this case for the purpose of controlling the course of proceedings on the formal trial hereof before the Court.

Dated this 11th day of July, 1950.

/s/ JAMES ALGER FEE,
District Judge.

Approved:

/s/ WARDE H. ERWIN,
Of Attorneys for Plaintiff.

/s/ VICTOR E. HARR,
Of Attorneys for Defendants.

/s/ THOMAS R. WINTER.

[Endorsed]: Filed July 11, 1950.

[Title of District Court and Cause.]

FINDINGS OF FACT AND CONCLUSIONS OF LAW

Findings of Fact

The Court, after the trial of the case, and after duly considering all of the evidence in the case finds the facts as follows:

1.

Finds the facts and matters set forth in the pre-trial order entered in this case.

2.

Finds that plaintiff's wife, Mildred P. Bronson, contributed no capital directly or indirectly through any community property interest or otherwise to the Parkdale Lumber Company.

3.

Finds that plaintiff's wife made no substantial contribution of services to the Parkdale Lumber Company.

4.

Finds that plaintiff through his contribution of capital and through his management of the Parkdale Lumber Company actually created the right to receive and enjoy all of the income therefrom taxed to plaintiff, amounting to one-half of the income of the Parkdale Lumber Company.

5.

Finds that plaintiff actually received or actually controlled and treated as his own all of the one-half or the income of the Parkdale Lumber Company taxed, for federal income tax purposes, to him.

6.

Finds that the partnership arrangement known as the Parkdale Lumber Company made no substantial change in the economic relationship of plaintiff and his wife; he continued to earn and produce the income taxed to him and controlled its use and disposition.

7.

Finds that Mildred P. Bronson did not in any substantial manner influence the conduct of the business of the Parkdale Lumber Company or exercise any voice or control of the distribution of the income from the business.

8.

Finds that plaintiff and R. C. Roles actually controlled and dominated the business of the Parkdale Lumber Company.

9.

Finds from a consideration of all the pleadings, the pre-trial order and all of the evidence in the case, oral and documentary, including the partnership agreement, the conduct of the parties in the execution of its provisions, their statements, the testimony of all the witnesses, the relationship of the parties, their respective abilities and capital contributions, the actual control of the income and

the purposes for which it was used, and all other facts and circumstances throwing light or tending to show the true intent of the parties to the agreement, that plaintiff and his wife did not intend, in good faith and with a business purpose, to join together as partners in the conduct of the business of the Parkdale Lumber Company.

10.

Finds that plaintiff's wife was not brought into the business conducted as the Parkdale Lumber Company as a partner for a genuine business purpose; rather, she was brought into the business principally for the purpose of minimizing plaintiff's income taxes.

11.

Finds that the Ashbaugh Wood Shingles and Shakes partnership came about in this way. The Warrenton Shingle Company, entirely owned and operated by plaintiff and R. C. Roles, manufactured cedar shingles and shakes. A large part of its output was marketed in the Los Angeles, California, area. One of its customers, sometimes referred to as distributor, was a Mr. L. B. Ashbaugh of Los Angeles. Morgan Stark, one of the partners of the Beverly Roofing Company of Los Angeles, came to plaintiff and to Mr. Roles in an endeavor to purchase shingles. Mr. Stark was advised by plaintiff and his associate, Mr. Roles, that their output of shingles was committed and that they had no shingles for sale to the Beverly Roofing Company. Thereafter, Mr. Stark again contacted plaintiff and

Mr. Roles and advised them that the Beverly Roofing Company had purchased the Ashbaugh business and in order to secure shingles Stark proposed to take plaintiff and Mr. Roles into a partnership so that they might share in the profits on the sale of the shingles by the Beverly Roofing Company. The Warrenton Shingles Company was at that time selling its entire output of shingles at the ceiling price under the regulations of the Office of Price Administration and advised Mr. Stark that they could not accept a higher price. Mr. Stark then proposed a partnership arrangement between the Beverly Roofing Company, Mildred P. Bronson, plaintiff's wife, and Janet L. Roles, wife of R. C. Roles. That arrangement was entered into on or about August 3, 1945. The Beverly Roofing Company, under the terms of the agreement, was to manage and operate the partnership, furnish its capital and neither Mrs. Bronson nor Mrs. Roles were to have any personal liability as to the partnership's operations conducted by the Beverly Roofing Company. Mrs. Bronson and Mrs. Roles were to receive 65% of the profits of the partnership for 1945 and 1946 and were to receive 50% of the profits thereafter. Mrs. Bronson was paid, under this arrangement, in 1945 the sum of \$1,956.86 and she was paid in 1946 the sum of \$6,209.41, all of which amounts were taxed to plaintiff and the income tax paid thereon by Mrs. Bronson was refunded.

12.

Finds that the Ashbaugh Wood Shingles and Shakes was organized to permit plaintiff and R. C.

Roles to avoid OPA regulations. Their wives were made nominal partners in this enterprise only because it was obviously illegal for them to have done so. Plaintiff was the real beneficiary of this arrangement and plaintiff, not his wife, had domination and control over the income allocated to her. The income received by Mrs. Bronson from Ashbaugh Wood Shingles and Shakes was merely an assignment of income by the plaintiff to his wife.

13.

Plaintiff's wife made no contribution of capital or services to the Ashbaugh Wood Shingles and Shakes partnership nor did she in any way contribute to the production of the income of Ashbaugh Wood Shingles and Shakes. The aforementioned amounts received from that source and taxed to plaintiff were paid to her solely because the Warrenton Shingle Company, owned and operated by plaintiff and R. C. Roles, was, under the circumstances, willing to and did ship a substantial part of its output of shingles and shakes to the Beverly Roofing Company.

Conclusions of Law

The Court concludes as follows:

1.

Plaintiff has failed to sustain the burden of proof on the issue that he and his wife, Mildred P. Bronson, were bona fide partners in the Parkdale Lumber Company.

2.

The Commissioner of Internal Revenue properly taxed to the plaintiff one-half of the income from the Parkdale Lumber Company for the taxable years here involved.

3.

The amounts of money paid to Mildred P. Bronson during the taxable years here involved by the Ashbaugh Wood Shingles and Shakes represented income of the plaintiff, assigned by plaintiff to his wife, Mildred P. Bronson. Such amounts were properly taxed to plaintiff.

/s/ GUS J. SOLOMON,

United States District Judge.

Dated: 17th day of November, 1950.

[Endorsed]: Filed November 17, 1950.

[Title of District Court and Cause.]

OBJECTIONS TO FINDINGS OF FACT AND
CONCLUSIONS OF LAW

Comes now plaintiff and objects to defendants' proposed findings of facts and conclusions of law as follows:

I.

Objects to proposed finding of facts numbered 2 and 3 on the ground and for the reason that there is no evidence to support said finding, but that the sole and only evidence concerning these findings are to the contrary.

II.

Objects to proposed finding of fact numbered 4 on the ground and for the reason that the same is not a fact but a conclusion.

III.

Objects to proposed finding of fact numbered 5 on the ground and for the reason that the same is contrary to the evidence.

IV.

Objects to proposed finding of facts numbered 6 and 7, on the ground and for the reason that the same is contrary to the evidence, and is a conclusion.

V.

Objects to proposed finding of fact numbered 8 on the ground and for the reason that the same is too broad and indefinite to be a fact and is therefore a conclusion.

VI.

Objects to proposed finding of fact numbered 9 on the ground and for the reason that the same is contrary to the evidence and contains a conclusion.

VII.

Objects to proposed finding of fact numbered 10 on the ground and for the reason that the same is contrary to the evidence and contains a conclusion and is a repetition of a previously proposed finding.

VIII.

Objects to proposed finding of fact numbered 11 on the ground and for the reason that the same is in part is not supported by the evidence.

IX.

Objects to proposed finding of fact numbered 12 on the ground and for reason that the same is not supported by the evidence and is a conclusion and has no application in part to the question of taxation.

And plaintiff objects to defendants' proposed conclusions of law and each of them, in that they are contrary to the law and the facts as applied thereto.

BOYD, FERRIS & ERWIN,
Of Attorneys for Plaintiff.

State of Oregon,
County of Multnomah—ss.

Due service of the within Objections is hereby accepted in Multnomah County, Oregon, this 20th day of October, 1950, by receiving a copy thereof, duly certified to as such by Warde H. Erwin, of attorneys for Plaintiff.

/s/ VICTOR E. HARR,
Of Attorneys for Defendants.

[Endorsed]: Filed November 17, 1950.

[Title of District Court and Cause.]

ORDER

November 17, 1950

Defendant appearing by Mr. James Garland, of counsel, and the plaintiff not appearing.

It is Ordered that the motion of the plaintiff for a new trial be, and is hereby, denied, and that plaintiff's objections to the proposed findings of fact and conclusions of law be, and are hereby, overruled.

In the United States District Court
For the District of Oregon

No. Civil 5299

CHARLES D. BRONSON, JR.,

Plaintiff,

vs.

HUGH EARLE, Collector of Internal Revenue for
the District of Oregon, and the United States
of America,

Defendants.

JUDGMENT

This cause came on for trial before the above-entitled court, without a jury, on July 11, 1950, and on order of the Court, was continued to July 15, 1950, for oral argument thereon, and the Court having heard oral argument and having taken the matter under advisement, and having now entered

herein Findings of Fact and Conclusions of Law in favor of defendants, and being advised in the premises, it is hereby

Ordered, Adjudged and Decreed that plaintiff take nothing and that the above action be, and it is hereby, dismissed on the merits, and it is further ordered that neither party may recover costs herein.

Dated at Portland, Oregon, this 17th day of November, 1950.

/s/ GUS J. SOLOMON,
District Judge.

[Endorsed]: Filed November 17, 1950.

[Title of District Court and Cause.]

NOTICE OF APPEAL

To: Hugh Earle and the United States of America, defendants, and to Henry L. Hess, Victor E. Harr, their attorneys:

You and each of you will take notice that plaintiff, Charles D. Bronson, does hereby appeal to the United States Court of Appeals, for the ninth Circuit from that certain judgment, findings and conclusions entered in the above-entitled case on the 17th day of November, 1950, and each and every part and the whole thereof.

BOYD, FERRIS & ERWIN,

/s/ WARDE H. ERWIN,
Of Attorneys for Plaintiff.

[Endorsed]: Filed January 12, 1951.

[Title of District Court and Cause.]

DOCKET ENTRIES

1950

Mar. 6—Filed complaint.

Mar. 6—Issued summons—to marshal.

Mar. 14—Filed summons with marshal's returns.

May 2—Filed answer of Hugh Earle and U. S.

May 9—Entered order setting for trial on May
31, 1950. McC.

May 12—Entered order cancelling trial date. McC.

May 15—Entered order setting for trial on Sept.
19, 1950. McC.

June 20—Entered order cancelling trial date of
Sept. 19. McC.

June 20—Entered order setting for pre-trial July
10 and trial July 11, 1950. Fee.

June 27—Filed stipulation to take deposition of
witness.

June 27—Filed notice for leave to take deposition.

July 10—Filed deposition of Morgan S. Stark.

July 11—Filed and entered pre-trial order. Fee.

July 11—Record of trial before court and order
continuing to July 15, 1950, 10 a.m. for
oral argument. Sol.

July 11—Filed Exhibits 1 to 129 (as listed in pre-
trial order).

1950

- July 15—Record of argument on the merits and order taking under advisement. Sol.
- Aug. 4—Record of oral opinion (Deft. to prepare findings and conclusions and judgment). Sol.
- Nov. 17—Filed objections to defendants proposed findings of fact and conclusions of law.
- Nov. 17—Filed motion for a new trial and for withholding entry of judgment.
- Nov. 17—Entered order denying motion for a new trial and for withholding entry of judgment. Sol.
- Nov. 17—Entered order overruling objections to proposed findings and conclusions. Sol.
- Nov. 17—Filed and entered Findings of Fact and Conclusions of Law. Sol.
- Nov. 17—Filed and entered judgment. Sol.
- Dec. 12—Filed transcript of proceedings dated July 11, 1950.

1951

- Jan. 12—Filed notice of appeal by plntf. Copy to U. S. attorney.
- Jan. 12—Filed bond on appeal.
- Jan. 15—Filed designation of contents of record and points on appeal.
- Jan. 17—Filed motion for order for clerk to send exhibits.
- Jan. 17—Filed and entered order to send exhibits. Sol.

In the District Court of the United States
For the District of Oregon
Civil No. 5458

CHARLES D. BRONSON,

Plaintiff,

vs.

HUGH EARLE, Collector of Internal Revenue,
and the United States of America,

Defendants.

July 11, 1950

Before: Honorable Gus J. Solomon,
Judge.

Appearances:

BOYD, FERRIS & ERWIN, by
WARDE H. ERWIN,
Attorneys for the Plaintiff.

JAMES P. GARLAND,
Special Assistant Attorney General, and
THOS. R. WINTER,
Special Assistant Attorney General,
Attorneys for the Defendants.

TRANSCRIPT OF PROCEEDINGS

The Court: In the case of Charles D. Bronson
versus Hugh Earle, Collector of Internal Revenue,
and the United States of America, are the parties
ready?

Mr. Erwin: Ready.

Mr. Garland: Ready.

The Court: You may proceed. I read the pre-trial order.

Mr. Garland: Before we start, may it please the Court, we would like to have the witnesses excluded. We think this is the type of case that indicates the propriety of that request.

The Court: Then we are going to have to change courtrooms, because we have no place.

Mr. Garland: In that event we will withdraw it, because it isn't important enough.

The Court: Are the exhibits marked already?

Mr. Erwin: They are marked. It doesn't look as if they are in order, and I hope the Court will bear with me.

The Court: That is all right.

Is there any objection to the exhibits?

Mr. Erwin: Your Honor, the exhibits were admitted for identification purposes, and the only objections reserved are those as to incompetency, immateriality, and irrelevancy to the time of trial.

Mr. Garland: We think that many of them have very little weight. However, we are going to raise no objection. We will [2*] raise no objection to the admissibility of any of them.

The Court: All right. All the exhibits are admitted. We will save some time on that. Either side may refer to any exhibit, and I will be the one to determine the weight and the relevancy.

Mr. Erwin: Very well.

* Page numbering stamped at top of page of original Reporter's Transcript.

(Pre-trial exhibits 1 to 129, inclusive, identified and described in the pre-trial herein, were thereupon admitted in evidence as Exhibits 1 to 129, inclusive.)

CHARLES D. BRONSON

was thereupon produced as a witness in his own behalf, and, having been first duly sworn, testified as follows:

Direct Examination

By Mr. Erwin:

Q. Mr. Bronson, you are the plaintiff in this case against the Collector of Internal Revenue and the United States. Is that correct? A. Yes.

Q. Mr. Bronson, let me ask you when and where you were married. I don't care where, but when?

A. In Vancouver in 1933.

Q. In 1933. Were you at that time a resident of Vancouver, Washington? A. Yes.

Q. And for how long did you remain a resident of Vancouver? A. Until 1935.

Q. And were you engaged in any occupation in Washington? [3]

A. Yes. I had a service station, worked for Standard Stations, and then had a service station of my own.

Q. And that was during the period that you lived there with your wife? A. Yes.

Q. Did you maintain at that time any bank account in Vancouver?

(Testimony of Charles D. Bronson.)

A. I maintained a bank account for the service station only.

Q. And was that in your name or joint names or how was that carried?

A. I don't just remember, but it was just exclusively for the service station. It might have been labeled "Gilmore Oil Company Service Station" or something like that. I don't remember.

Q. It was not a family or personal account?

A. No.

Q. Did you have any other bank accounts at that time?

A. Well, my personal account was kept with my father in a bank in Portland.

Q. In the bank at Portland. And what bank was that?

A. The United States National.

Q. Were your earnings from your enterprise in Vancouver deposited in that account with your father?

A. Yes.

Q. And your personal withdrawals were made from that account?

A. Yes.

Q. Now, when you left Vancouver in 1935, where did you go? [4]

A. Warrenton, Oregon.

Q. And will you tell the Court for what purpose you went to Warrenton?

A. Well, we went down there to start construction on a shingle mill.

Q. And did you form a concern at that time for the operation of that mill?

A. We formed a corporation, yes.

Q. And what was the name of that corporation?

(Testimony of Charles D. Bronson.)

A. Warrenton Shingle Company.

Q. And who were the original subscribers to stock of that corporation?

A. Mr. Roles and myself and my father.

Q. And your father's name?

A. Charles D. Bronson.

Q. And you are Charles D. Bronson, Jr.?

A. I am Jr., yes.

Q. Do you recall what the original stock subscription by yourself was to that concern?

A. Well, I believe it was \$3,400.

Q. \$3,400. At the risk of having my question objected to, I am going to ask if the original stock subscription could have been \$4,400.

The Court: What was it? [5]

Mr. Erwin: \$4,400, but ten shares were signed back according to the book, and I think the record will speak for itself.

Q. So eventually you did subscribe to \$3,400?

A. That is what I meant—eventually I did end up that way, I think.

Q. Then did Mr. Roles subscribe to stock at that time?

A. Well, yes. He subscribed for stock, but it was—I haven't refreshed my memory on this thing enough to know just how that was handled.

Q. Let me ask you this: Did he pay for any stock at that time? Did Mr. Roles pay for any stock at that time? A. No.

(Testimony of Charles D. Bronson.)

Q. The capital contribution was your own stock subscription? A. Yes.

Q. And where did the money come from to purchase that stock interest in the Warrenton Shingle Company?

A. Well, it was my money that I had at the time when we moved down there.

Q. And would you recall what account that was taken from?

A. Well, there was only one account that it could be taken from, from our account in the bank in Portland, United States National Bank in Portland.

Q. That is the account with yourself and father?

A. A small amount could have come from this service station that we might have had for working capital that we closed out [6] and used for that purpose, but, so far as I can remember—

Mr. Garland: If the Court please, we object. The answer has been made, but we will object to any other question on where it may have come from. It is a matter of speculation, and I believe the answer should be stricken.

Mr. Erwin: We have no objection to withdrawing that last answer—I mean the one that followed.

Q. Now, then, when you started the Warrenton Shingle Company at Warrenton, Oregon, was that an existing mill that you purchased down there?

A. No. We started building from the bare ground up.

Q. You constructed the mill? A. Yes.

(Testimony of Charles D. Bronson.)

Q. Did you purchase machinery for its operation? A. Yes.

Q. And was there any additional capital other than the \$3,400 put into that as far as you know?

A. You mean right at the beginning?

Q. Well, at any time at the early part of the corporation?

A. Yes. We didn't have quite enough to finance, so my brother joined us for a short while, and I believe he purchased 20 shares, if I remember correctly.

Q. How long was that stock held by him?

A. Well, I don't believe he was down there over a year.

Q. Who repurchased the stock from him?

A. Well, I think I did at the time. [7]

Q. What is your and Mr. Roles' respective stock interest now in the corporation?

A. We each have an equal number of stock now at the present time.

Q. State whether or not that was the original intention when you formed the corporation.

A. Yes. Mr. Roles and myself had signed an agreement that at such time as he was able—I believe there was a time limitation—that he had the right to buy a half interest.

Mr. Winter: The agreement, your Honor, is the best evidence.

Mr. Erwin: Unless it is contained in here, your Honor. I haven't checked. I think in any event he would be entitled to say——

(Testimony of Charles D. Bronson.)

The Court: Before you go ahead, let me say this: Do you intend to introduce anything in evidence, any document that hasn't been marked as a pre-trial exhibit?

Mr. Erwin: It is not our intention at this time, your Honor. We have no reason to believe there will be.

The Court: Well, I want to call attention to a rule of this court that no document may be introduced unless it is marked as a pre-trial exhibit. However, in this particular instance, because you may not have known of that rule, as far as this witness is concerned, if you want to produce the exhibit, the agreement, I think that will be all right.

Is there any objection? [8]

Mr. Garland: No objection at all.

The Court: No objection to it. And do you have a copy?

Mr. Erwin: I think there is a copy available.

The Court: All right. When it is available, it may be admitted.

Mr. Erwin: I think we will be satisfied, your Honor, with his answer that their stock interests now are equal, in any event. I don't believe it is too important.

The Court: We will see if there is any issue.

Mr. Garland: We will agree that is a fact without any further proof.

The Court: All right. It has been stipulated that the stock interest of Mr. Roles and the plaintiff are identical in the Warrenton Shingle Company.

(Testimony of Charles D. Bronson.)

Mr. Garland: Were they identical during the taxable year?

Mr. Erwin: I will ask that question.

Q. Were your interests identical during the years 1944, '5 and '6? A. Yes.

Q. Now, where did you live when you moved from Vancouver, Washington, to Warrenton?

A. I don't understand. Where did I live?

Q. I mean did you live directly in the City of Warrenton near the mill or some place else?

A. No; lived right in Warrenton. [9]

Q. And do you know whether Mr. and Mrs. Roles maintained their place of abode at that time?

A. Yes; right across the street.

Q. That was in Warrenton, Oregon, also?

A. Yes.

Q. And was that in fairly close proximity to the mill or some distance away?

A. No; it was about a half mile, I believe; as close as we could find places to live.

Q. Mrs. Roles was living there with Mr. Roles at that time? A. Yes.

Q. Was Mrs. Bronson living there with you at the time that you first went to Warrenton?

A. Not the first few months.

Q. And where was she living?

A. She stayed in Vancouver.

Q. And then she came down there how many months later, would you say?

A. Oh, three or four, I imagine.

(Testimony of Charles D. Bronson.)

Q. State, if you will, Mr. Bronson, to the Court what, if anything, Mrs. Roles did in behalf of the Corporation when it was first being formed.

Mr. Garland: We think that is immaterial. There is nothing involved here—no question of taxes involved in this case.

The Court: Well, it is just background they are asking for. [10] I assume the next thing he is going to try to bring out is what Mrs. Roles did. Let's go ahead.

Mr. Erwin: That's right.

A. When we first started, Mrs. Roles—we had a crew down there, and there was no place for them to stay or to eat or—if it hadn't been for her we wouldn't have had a crew. She had access to a fairly good-sized house, and fed the crew, the construction crew.

Q. Is that the crew that was building the mill?

A. Not the crew that was building the mill. That is what we had to have first, was a millwright crew.

Q. And did she perform any other work in behalf of the corporation?

A. Well, she was there at all times, and we were trying to decide what to do while we were constructing. It was not going too well. She was present when any discussions were made.

Q. You are referring just during the time you were constructing. Is that correct? A. Yes.

Q. Now, I meant at any time, Mr. Bronson, if you will just tell the Court.

A. Oh, at any time the mill was there?

(Testimony of Charles D. Bronson.)

Q. That's correct.

A. Oh, any time that I was gone and Mr. Roles was gone she was present in the office to take care of anything that came [11] in, and also she has—all the way through she has done invoicing.

Q. Now, when you say anything that happened to come in, what do you mean, in detail—sales, orders, big logs, or what did she do?

A. No, not hardly big logs, but orders, or if we happened—we shipped by boat and no one knows when the boat would come in. If I didn't happen to be there, there was a good deal of typing work to do in order to get the shingles out, manifests, invoices.

Q. Was there anyone else in the office other than Mrs. Roles?

A. No, not when—if I wasn't there, there was no one else available, no.

Q. Has she continued to do that work in behalf of Warrenton Shingle Company? A. Yes.

Q. And Warrenton Shingle Company is still in existence and still operating. Is that correct?

A. Yes.

Q. And has operated continuously from the time of its inception in 1935? A. Yes.

Q. Now, after Mrs. Bronson came down there, state whether or not she made any contributions of services in behalf of the Corporation. [12]

A. Well, when we were all there together, it was hardly necessary for her to do very much.

Q. So at that time she didn't contribute a great deal with respect to services? A. No.

(Testimony of Charles D. Bronson.)

Q. As a matter of fact, did you have any children at that time? A. Yes.

Q. And how many?

A. Two at that time when we first moved down there.

Q. And what were their ages at that time?

A. Well, one was just a few months old, and the other one was a couple of years old.

Q. And is that one reason Mrs. Bronson stayed in Vancouver rather than move down when you did?

A. Yes, that's right.

Q. Now, how long did the mill at Warrenton operate? A. It burned in 1943.

Q. Has that mill operated from——

A. '36 to 1941.

Q. 1943? A. '43, I mean.

Q. 1943. Then at any time did Warrenton Shingle Company acquire or purchase any other mills? A. Yes; a mill at Toledo in 1941.

Q. That mill was purchased in 1941? [13]

A. Yes.

Q. And was that purchased with Warrenton Shingle Company funds or how was it purchased?

A. Yes.

Q. It was purchased with Warrenton Shingle Company funds? A. Yes.

Q. Now, who was the operator of the mill at Toledo?

A. Mr. and Mrs. Roles moved to Toledo.

Q. Did they move their residence to Toledo?

(Testimony of Charles D. Bronson.)

A. Yes.

Q. And what discussions, if any, took place relative to the purchase of the Toledo mill between yourself, Mr. Roles and Mrs. Roles, and Mrs. Bronson?

A. Well, we had numerous conferences as to whether to go down there, and made many trips down there for quite awhile. In fact, I think we were six months to a year deciding to go down there, so I can't recall any detailed discussions, but there were many to find out whether we should do that or not.

Q. Where were these discussions held?

The Court: What is the point of this line of testimony as to whether or not they had discussions among themselves?

Mr. Erwin: Well, if the Court please, of course we will contend that Mr. and Mrs. Roles and Mrs. Bronson—that this was a closely-knit proposition from the very beginning, the whole transaction from the very start was, that they all [14] contributed services to the Warrenton Shingle Company, although the wives were not in fact stockholders in the Warrenton Shingle Company. Also, we contend that there was undoubtedly some unidentifiable, it is true, but community property which went in, on the part of Mrs. Bronson, which went into the Warrenton Shingle Company; and then we will later show that some of those profits—I mean the purchase of Parkdale Lumber Company—came from some of the assets of it.

Mr. Garland: I think it is questionable whether they can raise that question in any event as to the

(Testimony of Charles D. Bronson.)

community aspect. The claim for refund is not on the basis of community funds. That isn't alleged in the pleadings. It isn't suggested any place in the pleadings that the case is going to be defended on that ground.

The Court: Go ahead.

Mr. Erwin: Will you read my last question?

(Last question read.)

A. The discussions were held in Warrenton.

Q. Was there an office at the mill site in Warrenton? A. Yes, such as it was.

Q. Well, were the discussions held at home or at the mill site?

A. Probably at home. We had more room there.

Q. Did Mrs. Roles or Mrs Bronson at any time go to Toledo before you purchased the Toledo mill?

A. Yes, they both did. [15]

Q. Then Mr. and Mrs. Roles went to Toledo and he took over the active management of that. Is that correct, Mr. Bronson? A. That's right.

Q. And I assume you and Mrs. Bronson stayed at Warrenton and had the management of that?

A. Yes.

Q. Was Mr. Roles in continuous charge at all times after 1941 of the mill at Toledo?

A. Yes.

Q. At any time was he unable to perform his duties there?

A. Yes. He had a very bad accident. A log fell off a log deck on him, and he was out of commission for about, oh, around six months.

(Testimony of Charles D. Bronson.)

Q. Would you recall the approximate date of that?

A. No, I can't. I don't know the dates.

Q. Would it be shortly after the mill was purchased, or——

The Court: Do you know the date?

Mr. Erwin: I don't.

Mr. Roles: 4th day of December, 1941.

The Court: Are you Mr. Roles?

Mr. Roles: Yes.

The Court: Does that refresh your memory now?

A. Yes. I know it was a little while after the mill was started, but I am not very good on dates.

Q. (By Mr. Erwin): Who took charge of the Toledo mill while [16] Mr. Roles was laid up?

A. Mrs. Roles.

Mr. Garland: May it please the Court, it seems to me this is going far afield from anything pertinent. We don't know whether we are trying the Roles case or the Bronson case, from the testimony, and the services rendered by Mrs. Roles would have nothing——

The Court: I appreciate that, but I think we will get along faster. Cut this fairly short, but let's hear it.

Mr. Erwin: If perhaps I could ask a few leading questions, I could cut it short. I might say to the Court our understanding of the rules is that there is a question of identity, and we think the early history governs the identity.

(Testimony of Charles D. Bronson.)

The Court: If you are going into the question of identity, you had better not ask him leading questions.

Mr. Erwin: That, of course, is what we are endeavoring to show by this testimony.

Q. Did Mrs. Roles conduct the management of that business at all during all the period Mr. Roles was laid up?

A. Yes, there was no one else down there. I couldn't go, so she took charge of it.

Q. How far was Toledo from Warrenton?

A. Oh, between 150 and 175 miles.

Q. Now, Mr. Bronson, I believe you said that the Warrenton mill was destroyed by fire in 1943. Is that correct?

A. Yes. [17]

Q. When that mill burned down, state what, if any, discussions were had between yourself, Mr. Roles, Mrs. Roles, and Mrs. Bronson.

A. Well, Mr. and Mrs. Roles came from Toledo up to Warrenton that night of the fire, and we started right in from there as to whether—to decide as to whether to rebuild or find another site or just what to do, and we spent several weeks at that.

Mr. Erwin: Will you read the last answer?

(Last answer read.)

Q. (By Mr. Erwin): When you said you spent several weeks at that, Mr. Bronson, what do you mean by that—deciding, or what?

A. Well, made quite a few trips.

Q. And what were the purposes of the trips?

A. To look at new mill sites and also to deter-

(Testimony of Charles D. Bronson.)

mine the supply of timber on the river in case we should rebuild, and availability of machinery for rebuilding.

Q. Were you looking at that time for shingle mills or sawmills or what were you looking for?

A. For shingle mills.

Q. Shingle mills. Did Mrs. Roles or Mrs. Bronson accompany you on those trips? A. Yes.

Q. Were you able to locate a mill that you were interested in?

A. Well, we located lots of mills, but we weren't interested [18] in them, no.

Q. Did you make any offers to purchase any mills? A. No, not shingle mills, no.

Q. When did you hear of the—that is perhaps a little leading. I will ask it and see if there is an objection. When did you hear about the Parkdale mill?

A. Of course, I don't remember the exact date, but we had been doing business with A. W. Davis Supply and were acquainted with one of the members of the firm quite well, and he told us of this mill which was available at Parkdale.

Q. And that is the mill which is now operated as Parkdale Lumber Company? A. Yes.

The Court: What year was that—'43?

A. Yes; late in the year '43.

Q. (By Mr. Erwin): What did you do in relation to that after you heard about the mill?

A. We made a trip up there to look it over, just a one-day trip.

(Testimony of Charles D. Bronson.)

Q. And who was with you at that time?

A. Just Mr. Roles and myself made that trip.

Q. And did you immediately purchase the mill?
Let me strike that question. Was there any discussion held prior to purchasing that mill, and with whom and what were the discussions?

A. Yes. We looked the situation over and came back and discussed it amongst the four of us. [19]

Q. And was there any decision made?

A. Well, we decided to buy it if there wasn't anything wrong with it that we hadn't found up until the time, up until that time.

Q. And what elements did you consider when you say there was nothing wrong with it? What elements did you consider?

A. Well, timber supply, and we didn't have time to look the mill over and see whether it was in running order; mostly timber, though.

Q. Did you subsequently make an investigation as to that prior to purchase?

A. Yes. Mr. Roles inquired at the United States Forest Service office here in Portland, and I went up there to talk to the local ranger, but didn't get too much satisfaction.

Q. You, in any event, decided to purchase that mill. Is that correct? A. Yes.

Q. And who was the owner of the mill at that time? A. Two brothers, Newell brothers.

Q. Would you recall their names?

A. Walter Newell and Frank Newell.

(Testimony of Charles D. Bronson.)

Q. What was the consideration for that purchase? A. The total sum?

Q. Yes. A. \$45,000. [20]

Q. How was it to be paid? A. \$20,000——

Mr. Winter: You have the bill of sale and promissory note and everything in evidence.

Mr. Erwin: I guess we have.

Mr. Winter: That is the best evidence.

The Court: Is there any dispute about that price?

Mr. Erwin: No, I don't believe so.

Q. How was the purchase price of that mill paid for?

A. \$20,000 came from the account in Astoria, Warrenton Shingle Company account, and was paid to The Dalles Branch of the United States National as the initial payment.

Q. Now, I am going to refresh your memory a little bit. One to The Dalles Branch on Warrenton and one to Newell Brothers from the Bronson log account. Can you clarify as to what those are?

A. Well, I believe the first one was to be held by the U. S. National until we actually got possession, and the next one was to finance the down payment.

Q. What is the Bronson log account?

A. That was an account established for us at Warrenton, because we happened to be on the river and an open mart there, and cedar was scarce at that time, and when we had a chance to buy several rafts of cedar and we didn't have enough money

(Testimony of Charles D. Bronson.)

in the regular account, so we used this log account, which was [21] to purchase logs and put in storage.

Q. Did that represent personal funds or corporation funds?

A. No, it wasn't corporation funds. It was funds that we had accumulated there for that.

Q. I think I neglected to ask you, Mr. Bronson, was the Warrenton mill covered by insurance?

A. Yes, a small amount.

Q. And what was the amount of that?

A. \$5,000.

Q. And was that paid to Warrenton Shingle Company? A. Yes.

Q. Did any of that go into the purchase of this mill? A. Of the mill?

Q. At Parkdale. A. Yes, I think so.

Q. Now, there was also a check from the Warrenton log fund of \$10,458.03 to The Dalles Branch of the United States National Bank. Will you tell us what that was for?

A. That was to close that account and move to the bank at The Dalles for our working capital in the sawmill.

Q. Now, the agreement between Newell Bros. for the purchase of that mill, was that in individual names or the name of the partnership, or who was it that purchased that mill?

A. No, it was in the name of Warrenton Shingle Company.

Q. And was that mill purchased from funds

(Testimony of Charles D. Bronson.)

which were made [22] available as a direct result of the fire?

A. Yes. We had no use for any working capital at Warrenton. The mill was gone, so—— (pausing)

Q. Now, then, when was the partnership known as Parkdale Lumber Company set up?

A. The exact date?

Q. Well, not the exact date—if you can remember the exact date.

A. I don't remember the exact date. It was around the first of the year of 1944.

Q. Will you state to the Court what the circumstances were surrounding the formation of the partnership, to the best of your recollection?

A. Well, to the best of my recollection, we didn't hardly know how to start our business up there because I felt it necessary for me to be—the sawmill being very hazardous, I felt it necessary for me to have some protection because I happened to be a partner with my two brothers and father in apartment houses, one here in Portland and one in Vancouver, and I felt that if some form of organization could be made whereby I could have a little protection against if something went wrong that wouldn't involve my father and my two brothers, and that was my reason for going into a partnership.

Q. Well, now, a partner in and of itself wouldn't provide that.

A. Well, a limited partnership, I would [23] say.

(Testimony of Charles D. Bronson.)

Q. And that is the reason this limited partnership was formed? A. Yes.

Q. Was that discussed with any attorney?

A. Yes.

Q. And with whom was that discussed?

A. Mr. Carey Martin.

Q. How did you happen to go to Mr. Martin, Mr. Bronson?

The Court: I think a man can go to any lawyer he wants.

Mr. Erwin: I think it would be helpful to the Court in this particular case how he got there. Otherwise, I wouldn't ask it.

A. The reason for going there was because I wasn't acquainted with any other lawyer in particular, and I was referred there to establish the proper insurance. The industrial—to reject Industrial Accident Commission you have to do it before you start in business, so I went there to take out private insurance.

Q. You did not go to his office to take out private insurance?

A. Oh, no. He just made the necessary arrangements.

Q. As a matter of fact, that was the Northern Life Insurance? A. Northern Life.

Q. And they referred you to Mr. Martin as their attorney. Is that correct? A. Yes.

Q. And then you discussed with him your problems in setting up this business? [24]

A. Yes.

(Testimony of Charles D. Bronson.)

Q. What did you tell him about the business—what you wanted?

A. Well, I just told him——

Mr. Winter: If the Court please, we will object to that.

The Court: I think you are getting pretty far afield, what he told him.

Mr. Erwin: Well, of course, your Honor, I think, as a matter of fact, we could ask the question, “What did you intend to do?” and it would be perfectly proper under the circumstances, since he would be permitted to testify about his own intent. I would rather show it by the conversations, but under the present law we believe we are entitled to inquire into intent. Perhaps it would be self-serving, and I don’t know how impressive it would be to the Court.

The Court: I had that in mind.

Mr. Erwin: Let’s strike it. I will withdraw the question.

The Court: I don’t care. Ask the question if you want to.

Q. (By Mr. Erwin): I will ask you whether or not there was discussion also as to a corporation setup? A. Yes, we had thought of that.

Q. That form would have given you protection as far as your brothers and father were concerned?

A. That’s right.

Q. What was your purpose in not using a corporation setup?

(Testimony of Charles D. Bronson.)

A. We had a corporation at Warrenton, and it had never been [25] too satisfactory, so we—as a matter of fact, this limited partnership was rather new at the time and sounded like a good method of organization.

Q. Now, did anyone consult with Mr. Martin other than yourself, any of the other four partners, three partners, than just yourself? A. No.

Q. Can you state whether or not there were any discussions as to your conversations with Mr. Martin between the other partners?

A. Oh, yes. There was discussions as to whether we could form this limited partnership or a corporation, just how to start out.

Q. Were there any discussions as to formation of any other partnership?

A. Yes. We had at the same time started proceedings, what we thought was proceedings, to dissolve Warrenton Shingle and form a partnership there, too.

Q. Was anything done in that regard?

A. Yes, I believe part of the papers were prepared.

Q. And who prepared those?

A. Mr. Martin.

Q. And why did you intend to form a limited partnership of Warrenton Shingle Company?

A. Well, as I said before the corporation didn't work very good and there were just a few of us in it and we just thought [26] that they should be

(Testimony of Charles D. Bronson.)

both—all partnerships, you might say. There was just the four of us in the whole thing.

Q. Was there any other purpose to be served by including the wives in the partnership?

A. Any other purpose?

Q. Yes.

A. I suppose everybody thinks of saving taxes if he can.

Q. And was that matter discussed with Mr. Martin?

A. Oh, not particularly, no. We didn't know whether we were going to make any money or not.

Q. Now, when did you start operation, Mr. Bronson, at Parkdale Lumber Company?

A. About the first of March, 1944.

Q. And I believe the record shows that you caused your articles to be filed? A. Yes.

Q. I want to go back just a minute, Mr. Bronson. Did you and your wife purchase any property from the Newells or from either of the Newells?

A. Yes, we purchased the house where we live.

Q. That is the house where you live at present?

A. Yes.

Q. State what proximity that has to the mill site at Parkdale.

A. Oh, it is about a hundred feet from the mill.

Q. And from what source were the funds to purchase that taken? [27]

A. That came from our joint account.

Q. Now, Mr. Bronson, did you take out an in-

(Testimony of Charles D. Bronson.)

insurance policy of any kind to cover the operation at Parkdale? A. Yes.

Q. Did you take out a liability policy——

Mr. Garland: We think that is immaterial, your Honor.

Mr. Erwin: The policy is in evidence and will speak for itself.

Mr. Garland: It isn't in evidence.

Mr. Erwin: It is in evidence. It has already been identified.

Mr. Garland: All right. However, I think any testimony in this regard to an insurance policy is immaterial and has little weight in this case.

The Court: The objection will be noted.

Q. (By Mr. Erwin): I take it you may answer the question: Did you take out an insurance policy when you started the operation? A. Yes.

Q. Were there any changes made in that——

Mr. Winter: The instrument speaks for itself.

Mr. Erwin: I want to ask him why he made the changes.

Q. Were there changes made in the policy, and, if so, why?

A. Yes, there was a change made. At the beginning the insurance agent wasn't familiar with the operation, and as soon as it was noted he changed the name, put a rider on the policy [28] changing the name to the proper—the way it should be properly.

The Court: Just one second. It is about 11:30

(Testimony of Charles D. Bronson.)

now. I was wondering how many witnesses you have.

Mr. Erwin: We have just the four partners, your Honor, and Mr. Martin.

The Court: And you are about half through with Mr. Bronson or a little more than that?

Mr. Erwin: I would say a little more than that, as long as the documents are in evidence.

The Court: Have you your usual number of witnesses?

Mr. Garland: Yes, your Honor; exactly.

The Court: Do you want to finish today?

Mr. Erwin: Well, we prefer to if we can, your Honor.

The Court: Let's take about a five-minute recess now, and we will go through to 12:30, if that is O. K., and then we will come back at two o'clock, and we will go 'till 5:00 or 5:30, till we finish.

Mr. Erwin: That would be helpful, your Honor.

Mr. Garland: Very agreeable.

The Court: A five-minute recess.

(Recess.)

The Court: Do you want to put Carey Martin on the stand out of order?

Mr. Erwin: Yes, I would like to save some of his time.

(Witness withdrawn.) [29]

CAREY MARTIN

was thereupon produced as a witness in behalf of the plaintiff, and, having been first duly sworn, testified as follows:

Direct Examination

By Mr. Erwin:

Q. Mr. Martin, will you state your occupation?

A. I am an attorney.

Q. And for how long have you been engaged in the practice of law?

A. I have been engaged in the practice of law since 1922, but only in Oregon since January, 1936.

Q. Since January, 1936? A. Yes.

Q. And you have practiced here in Portland since 1936? A. Yes.

Q. Mr. Martin, I will ask you whether or not you have had occasion to do any work for Mr. Charles Bronson or Mrs. Bronson or Mr. Roles or Mrs. Roles. A. I did.

Q. And will you state to the Court the approximate date that you did some work for them?

A. Well, I have no independent recollection of that date, but——

The Court: Exhibit No. 25, if you want to take a look at it.

Q. (By Mr. Erwin): Would you recall the year? [30]

A. Well, I would think that it would be along in the winter of '44, but in arriving at that date

(Testimony of Carey Martin.)

I am using what I understand to be the facts, and I haven't referred to——

Q. Well, in any event, will you tell the Court, if you will, Mr. Martin, what the nature of your work for the parties was?

A. Well, it was advice and discussion with them in connection with their business operations, and I drew up and filed, I think, a limited partnership for the Parkdale Lumber Company.

Q. Parkdale Lumber Company? A. Yes.

Q. And would you recall the approximate date that that was filed—I don't think that is important. The evidence will speak for itself in that respect. We will withdraw that. Did you do any work for Mr. and Mrs. Bronson other than for the Parkdale Lumber Company?

A. Well, yes. In connection with this, Parkdale Lumber Company was not formed at the time I originally started the work for them, and we discussed the Warrenton Shingle Company and the general activities of those two families.

Q. And what was the discussion, if you recall, as to the Warrenton Shingle Company?

A. Well, when I was first contacted in regard to all these matters—well, they told me that they had formerly had two operations, that the Roles run one of them and the Bronsons ran the other—they were in two different towns—and it was [31] all in the form of a corporation, as I remember it, the Warrenton Shingle Company, and that one of them had burned down some time or other—I think

(Testimony of Carey Martin.)

it was the activity that Mr. and Mrs. Roles were actively engaged in, I believe. I am not certain of that, but that is my memory of it, and that they were purchasing a sawmill some place; and I discussed with them what their setup was, business setup, organization, and they explained that to me and discussed how it would be advisable to operate the Parkdale Lumber Company, and also whether or not it would be advisable to terminate the corporate setup they were operating under at that time.

Q. Before I forget it, Mr. Martin, I want to ask you whether or not you have made a search of your files in regard to that?

A. Yes, I have. We moved—Mr. Dusenbery and Mr. Schwab and myself dissolved the partnership with Mr. Crum last May, and the 1st of December, 1949, Mr. Dusenbery and Mr. Schwab and myself moved to the twelfth floor and at that time made a separation of the files, and recently we have tried to find this file in both offices, and haven't been able to find the file in either office.

Q. Mr. Martin, I am going to hand you Plaintiff's Exhibits 39 and 40, perhaps for the purpose of refreshing your recollection and perhaps adding any additional facts that you may want to in regard to what took place in your dealings with Mr. Bronson and Mr. Roles. [32]

A. Well, Exhibit 39 is a letter that bears my signature as a member of the firm of Crum, Dusenbery & Martin, as it was at that time. I notice that

(Testimony of Carey Martin.)

the principal part of that letter is in regard to \$35.00 for trust agreements, employer-employee agreements. No doubt that would be confusing to everyone. It has nothing to do with this matter, but I could explain what that is all about.

Q. You might relate it just briefly.

A. That has to do with what is known as an automatic coverage program which some employers who reject the State Workmen's Compensation Act put into effect, covering their employees whereby accident insurance policies are obtained, individual accident insurance policies are obtained, covering each employee with the benefits payable, assigned and paid to, the employer, and the employee at the time he goes to work signs up an employer-employee agreement whereby after an accident the employee shall have the option and election to either accept those accident insurance benefits in full settlement of any claim for damages he might have against the employer, or the election, if he does not desire to do that, to bring suit for claim for damages, in which case the accident benefits go to the employer to be used as salvage. In putting that into effect, we draw trust agreements with the Portland Trust & Savings Bank or probably at that time it was the U. S. National Bank, providing for the death benefits in case of a death, and also [33] arrange for the employer-employee agreements. That has nothing to do with our representation of the Bronsons and the Roles in regard to this matter. That came through the insurance sales-

(Testimony of Carey Martin.)

man for the Northern Life, who always arranges for us to make these out in case they accept that type of coverage, and I notice this was about the time that was starting up, apparently, because apparently we originally had a charge of \$35.00 for doing that, and reduced it to \$25.00. It has nothing to do—that came through the insurance agent for the Northern Life, and has nothing to do with the matters I discussed here.

Q. Is there any reference in that letter to the dissolution of the partnership?

A. Well, the only thing that refers to this would be the second paragraph, in which it says that it would be satisfactory if the balance sheets and profit and loss statement be made up “about March 10th, as you suggest.” That suggests, as I recall it to my mind, that we were attempting to—we decided and planned to dissolve the Warrenton Shingle Company, as I remember it, as a corporation, and in doing that it was necessary to have some fixed date as of which it would be done. I don’t remember what that date was, but apparently I would understand that to mean that I had suggested a date when they would have that ready, and he had written back and he said it wouldn’t be ready until March 10th, and would that be satisfactory, and I said it would be. It might have been even a January 1st [34] change. I don’t know.

On the other exhibit, Exhibit No. 40, the first paragraph reminds me that these were mailed out for signature. I have been trying to remember

(Testimony of Carey Martin.)

whether they were signed in my office for signature, or not, and I couldn't remember; and the second paragraph in regard to the rejection of the Workmen's Compensation law is something that I am always conscious of in any case of a change of an organization, that they must reject before they start to do business; and the third paragraph in regard to this amount of \$1,782.26 with the explanation of how it is arrived at doesn't mean much to me. I have no independent recollection of how those figures were arrived at. I do remember that there was a father or a brother that had an interest or shares of stock in the Warrenton Shingle Company corporation, who had to be considered; and then there was also some ownership of some other property that had to be considered. I can remember those broad things, but I can't remember any of the details.

Q. Do you recall anything about the question of liability as to the brothers or fathers?

A. Yes, I do remember that, especially that Mr. Bronson, I believe it was, I think it was—one of the men, at least—I think it was Mr. Bronson—was concerned as to whether or not there could be a deficiency judgment on some mortgages given on some other property with somebody else—I believe it was [35] members of his family—that might ultimately interfere with the operation of the business.

Q. Do you recall whether or not that was one

(Testimony of Carey Martin.)

of the reasons for forming a limited partnership?

A. Yes; definitely.

Q. I call your attention to the fact that in this case Mrs. Bronson is a general partner and Mr. Bronson is a limited partner.

A. Yes. The limited partnership law had just gone into effect in July of 1943, and I remember the difficulty about these times of even getting a copy of it to read what it said, but we were interested as lawyers in the fact that the limited partnership law limited the liability of limited partners.

Q. I should like to hand you Plaintiff's Exhibit 108, and ask you whether you recall having received that letter from Mr. Bronson.

A. Well, I have no independent recollection of the letter, but, I mean, it would be my opinion I had received such a letter. It discusses the matters which we were discussing between ourselves, including the one that says, "I supposed you had passed out of the picture altogether." I would say that Mr. Bronson was not always in the office when I would expect him, and it was—I was never sure whether I was his attorney or not for a while. I wouldn't see him. But that is no criticism on him. I do—it also ties onto the fact that apparently this is the [36] same statement he is talking about in this letter here that I referred to that as yet hadn't appeared in March, and this is December, the part about the gift taxes that—I think I am usually very careful to tell everybody—apparently I told him that—the necessity of a gift tax return, although

(Testimony of Carey Martin.)

there is no gift tax payable if it is over the exclusion.

Mr. Erwin: You may inquire.

Cross-Examination

By Mr. Garland:

Q. Mr. Martin, you have known Mr. Pattullo some time, have you not?

A. Yes, I have known him some time. I think I could determine about when I met him. Yes, I met him soon after I came to Portland.

Q. Mr. Pattullo referred to you in my presence, talking about the exhibits in this case, as a tax expert. Is that substantially so?

A. I have often said I am not a tax expert. I like to say that I do specialize somewhat on taxes.

Q. Federal tax matters?

A. Well, I wanted to, but I found that my experience in 13 years' practice in Iowa was mostly in the general practice, and when I came to Portland I hoped to build up a specialized practice. I always wanted to be a little more familiar with one line or the other, but it hasn't been my experience. I find I have [37] drifted into the insurance work, so that I would say 80 per cent of my time is spent representing insurance companies, which I also had had considerable experience with, and very little of my time is spent on tax work. I don't pretend to be as much of an expert on taxes as Mr. Pattullo.

(Testimony of Carey Martin.)

Q. But you do take tax cases, and a substantial part of your practice has to do with federal tax matters?

A. Oh, no; not a substantial part that has to do with federal tax matters. Perhaps I was known—I even furnished to Stevens-Ness a tax table free of charge that I drew up at length, and got considerable—legitimately, I hope—advertising out of that fact, but I didn't find much business on it. I haven't done as much as I would like to do.

Q. Mr. Bronson has testified, and you heard him testify, that the tax saving was a motive in the arrangements that he made?

Mr. Erwin: I would like to correct counsel. Mr. Martin wasn't here when Mr. Bronson testified.

Q. (By Mr. Garland): In regard to the tax saving aspect in the formation of these partnerships, what advice, Mr. Martin, if any, did you give to Mr. Bronson?

A. Well, I can't base my answer on Mr. Bronson's testimony, because I came in during recess.

Q. All right. You just tell us what you told Mr. Bronson with regard to the tax phase of the setting up of a family partnership.

A. Well, the first tax thing I think that we discussed was [38] in connection with the Warrenton Shingle mill, as to whether or not a corporation was the proper type of business setup taxwise, and also considering its liability-wise, and all the aspects as a lawyer would look at them, as to whether or not they should dissolve their corporation, and

(Testimony of Carey Martin.)

we discussed the amount of profits that they were making and what reasonable salaries would be for all the parties who were concerned there in the operation, and I discovered that up to the present time, or at that time, their profits had not been such as to pay them even up to what probably would be considered a reasonable salary, so that there was not a duplication of taxes at that time.

Q. What do you mean—"a duplication of taxes"?

A. Well, I mean whether there were profits of the corporation over and above the running expenses, so that the corporation would pay taxes on that, and then they would be contributed as dividend, and they would pay personal taxes on the dividend, is what I mean by "a duplication of taxes."

Q. Are you talking now about your advice to Mr. Bronson concerning the possibility of changing the Warrenton Shingle Company into a family partnership? Is that what you are talking about now?

A. Well, there was no discussion of a family partnership as such. The discussion was whether it would be advisable to dissolve the [39] corporation.

Q. And do what with the business?

A. And what—that was the discussion, what could be done; that an ordinary partnership would still leave all the partners liable, and that is the reason we discussed this contingent liability. We went

(Testimony of Carey Martin.)

into all those business things that you would discuss to decide whether or not it was a wise thing to do to dissolve the corporation.

Q. We are talking now about the Warrenton Shingle Company. Did you not know at the time you talked to Mr. Bronson that he had about \$4,400 invested in the Warrenton Shingle business and that if the business was changed, liquidated and put into a family partnership or any other partnership, that there would be liquidating dividends and that he would be required to pay income taxes on the liquidated dividends?

A. I have no recollection of any of the amounts, but we did discuss the proposition.

Q. That phase of the case?

A. That's right.

Q. Now, isn't it so that you advised him not to change the Warrenton Shingle Company, leave it as a corporation, because he would pay a large tax, federal tax, if he did so?

A. No. It is my memory that the Warrenton Shingle Company would also—was going to be changed over into a limited partnership, and my recollection of my file, if I could locate it, would be unsigned, uncompleted papers all drawn up [40] for the Warrenton Shingle Company dissolution.

Q. Why didn't it go through?

A. I didn't know, myself. As I suggested before, Mr. Bronson didn't come in very often. There was the complication in regard to the father that had a share in that, or one share, and time went so long

(Testimony of Carey Martin.)

by from when the original was going to get a statement on it that finally, to the best of my recollection, it just petered out, as a matter of fact.

Q. You drew the family partnership which formed the Parkdale Lumber Company. Isn't that so? You drew the agreement?

A. I drew the limited partnership agreement. I hesitate to say the "family." There were two families involved. I don't think of it as a family partnership, myself, but you probably do.

Q. Well, they are made up of members of the family. Isn't that so?

A. Two families, yes.

Q. Did you give Mr. Bronson or Mrs. Bronson advice as to the tax consequences or possible tax consequences of that arrangement?

A. Yes.

Q. And what did you advise them?

A. I advised them that in my opinion that they would be taxable according to—I don't even remember whether—according to their proportionate shares.

Q. And you advised them it would be recognized for income [41] tax purposes, in your opinion?

A. I assumed so, because, in my opinion, that was my opinion, and I assume I told them that.

Q. You talked, I believe, to a revenue agent by the name of Mr. Stewart about this case?

A. Not to my memory. Perhaps if you could give me some clue I will pull it back to my mind, but I don't remember talking to any revenue agent.

(Testimony of Carey Martin.)

Q. You don't remember talking to any revenue agent about this matter at all? A. No.

Q. Stewart or any other agent?

A. No, I don't, but I wouldn't say I didn't. Could you give me some clue?

Q. Do you remember talking to anybody connected with the government, an agent or anybody else, that Mrs. Bronson made no contributions of cash or services to this partnership?

A. I certainly don't remember of doing that, no. Who is Mr. Stewart? Is he a Seattle man?

Q. I don't know. Now, you spoke of a gift tax. What did you have reference to there?

A. A gift tax, a federal gift tax return.

Q. Gift tax on what?

A. Any gifts; if they made any gifts to their wives.

Q. What gifts did they tell you they made to their wives? [42]

A. I have no independent recollection on it at all, but as to who owned the property, or who—what activities, I have no independent recollection, but——

Q. Was a gift tax return filed?

A. I have no memory of that, but I don't think so. I don't remember of it.

Q. You testified that you looked into it, however, looked into the matter?

A. Well, the most that that letter indicates, which would be the most that I can testify to, was that if gifts are made to the wives you must give

(Testimony of Carey Martin.)

concern to gift tax. Now, as to whether or not they made a gift to the wife I don't know. I don't know. I have no memory of that.

Q. Did you advise them tax-wise with regard to the transfer of the Parkdale mill from—from the Warrenton Shingle Company to the new partnership?

A. I might have, although I had no memory until just today, I think, when I came up to the hall and Mr. Bronson told me that that was originally taken in the name of the Warrenton Shingle Company. I have no independent recollection on that.

Q. So you don't remember advising them that that might be considered for purposes of income tax as a distribution? A. Well, I doubt it.

Q. In the form of a dividend?

A. You see, I am not such a good expert. I mean my recollection [43] now is that it wouldn't be, so I probably didn't advise them that. If the Warrenton Shingle Company merely takes a contract for the purpose for another organization—perhaps I am wrong. I am not an expert.

Q. Now, you testified one of the reasons Mr. Bronson desired to have a partnership for the Parkdale Lumber Company business was to limit his liability. Is that right?

A. That's right. The limited liability was seriously considered.

Q. Your answer is "Yes," is it not?

A. That's right.

(Testimony of Carey Martin.)

Q. All right. Now, did he tell you at that time that his wife had no assets?

A. No, I didn't understand his wife was on the mortgage. I understood he was on the mortgage.

Q. Don't you recall—you drew the instrument—that his wife was named in the instrument as a general partner?

A. Yes, but I thought the mortgage—that he was afraid of liability on it, as I understand it, as I remember it, although again I can't recall back—was that he, himself was liable. Now, I——

Q. What mortgage could that have had reference to that hasn't been mentioned?

A. Well, I testified to it a moment ago, and I can't give a great deal of facts on it. I do remember that he was [44] concerned about some mortgage on an apartment house or something of that sort, or a house, that he was on that might turn out later to be a deficiency judgment against him. He had signed some mortgage on some apartment house or building or something like that, which he was afraid wouldn't pay off the debt, and they would get a deficiency judgment against him.

Q. And take his interest in the partnership?

A. Well, to take his interest—this is before anything had been formed. We were discussing whether or not he should dissolve the corporation, and, of course, the creditor could only reach his stock in a corporation or if he is a limited partner a creditor could only reach his interest in the corporation, as I understand the law, but—and if he were a limited

(Testimony of Carey Martin.)

partner, a general partner, they could dissolve, could cease his interest and cause a dissolution of the whole partnership,* which they can't do on a limited partnership, as I understand the law. I could be mistaken.

Q. As I understand the partnership agreement, Mr. Bronson was to contribute \$2,500 to the Parkdale business. Is that right?

A. I don't remember. I don't have any idea what those amounts were or who put them in or anything.

Q. Well, perhaps you can refresh your recollection by looking at the agreement, Mr. Martin.

A. Well, by looking at the agreement, it would appear to be a copy of the form that we used. It looks familiar, but I have [45] absolutely no recollection in regard to what this would say in property and in money. The law requires that all limited partnerships set out how much is contributed in money and in property separately, and I have no recollection whether or not that would say property—something in property or something in money; just none at all.

Q. The agreement provides, Mr. Martin—speaks for itself, of course, and provides that Mr. Bronson was to contribute \$2,500. Is that right?

A. No, I don't recall it. The only thing I am getting at—

Q. It makes no provision for contributions by Mrs. Bronson of any capital. Do you have any recollection of why it was done that way?

(Testimony of Carey Martin.)

A. My memory—I could check up, but my memory is that the limited partnership law only requires it on the part of limited partners. That would be indicated to me by the fact that they aren't all included.

Q. Then you knew at that time, at the formation of the partnership, that Warrenton Shingle Company turned over the Parkdale plant which had a cost to them of \$45,000?

A. Well, that figure sounds familiar to me, but unless it had been mentioned why I wouldn't have any memory of the amount.

Q. You have no recollection as to why the \$2,500 was put in there?

A. But in your question you speak about nothing the Warrenton [46] Shingle Company was turning over a contract. My recollection is that Mr. Bronson came to me before starting operations or in regard to how this thing should be done. They were going to start up these operations up there. "Well, now, at this time how should this be handled?" And he came to me with that in mind. And I knew, I can remember, that they had a contract for the purchase of it, but, as I remember, it hadn't gone into possession. Now, I don't remember that that contract was in the name of the Warrenton Shingle Company or doubt if I ever saw it, and have no recollection whose name it was taken in, but it was prior to them doing anything, or anything more than paying earnest money or something like that.

(Testimony of Carey Martin.)

Q. Did you have anything to do, Mr. Martin, with the Ashbaugh arrangement?

A. No. I was asked last night whether or not I had anything to do with an Ashbaugh arrangement.

Q. Do you know a man by the name of Morgan S. Stark? A. No.

Mr. Garland: I think that is all.

Redirect Examination

By Mr. Erwin:

Q. Mr. Martin, have you talked to Mr. Pattullo at any time about this case?

A. No, except Mr. Pattullo asked me a couple of time if I could find the file. I have looked for the file. I have never [47] talked to him about it outside of trying to find the file on it.

Q. How many times have we had conversations?

A. You dropped into the office last night about fifteen minutes of five, and you didn't have any papers with you or anything, and we talked about five minutes.

Mr. Garland: Oh, that is not material.

Mr. Erwin: He was asked how well acquainted he was with Mr. Pattullo and his friendship, and I think it is proper.

The Court: Do you have a partnership agreement? Is there a partnership agreement here?

Mr. Erwin: Yes; this and that one (indicating). This is the one filed with the Corporation Commissioner, and this filed with the Clerk.

(Testimony of Carey Martin.)

The Court: This is just a certificate.

The Witness: It contained the partnerships, and that is a copy filed with the Corporation Commissioner.

The Court: Yes, but this is just a certificate. There usually is an agreement setting forth their rights and duties.

Mr. Winter: That's it.

Mr. Erwin: I might ask Mr. Martin——

Q. Would there be any other agreement?

A. I think there would be ordinarily.

The Court: This is just a certificate.

Mr. Erwin: As far as I knew that is the only one in existence, but I may be wrong. [48]

The Witness: I would not be surprised if there wasn't in this case, because I would say again, without criticizing Mr. Bronson in this case, my relationship in this case was difficult about coming in and getting anything done, although ordinarily a partnership agreement is drawn. This was one of those things that jumped from here to there, and he informed me at that time that Mr. Erwin was his attorney when you were in the Service or something like that, and I got to thinking probably later on Mr. Erwin was handling his matters. He just didn't come in, and I am not surprised if it is lacking in this case.

Recross-Examination

By Mr. Garland:

Q. May I ask you this: Did you talk to Mrs. Bronson about the formation of the partnership?

(Testimony of Carey Martin.)

A. I don't believe I did, but I can't remember in regard to that. I can't remember whether Mr. and Mrs. Bronson were both in the office, but I would say that if so Mrs. Bronson wasn't in more than once, that any information he gave with regard to their operations and activities and all that came principally from Mr. Bronson.

Q. In other words, came entirely from Mr. Bronson? That is what you mean?

A. Unless Mrs. Bronson could have been there once.

Q. And you don't remember whether she was or not? [49]

A. No, I don't.

Q. And if she was there she couldn't have been there more than once?

A. I would think not.

Q. In other words, she took no active part, as far as you were concerned, in the arrangements. Is that right?

A. Well, personally with me, that is true, but I wouldn't want to say that she took no active part.

Q. In so far as you are concerned, so far as your business.

A. So far as contact with me, it was principally with Mr. Bronson, not over once with Mrs. Bronson, if at all.

Q. Let me ask you one more question, Mr. Martin. Now, you say you advised Mr. Bronson that, in your opinion, this family partnership arrangement, or the Parkdale Lumber Company partner-

(Testimony of Carey Martin.)

ship, would be recognized in so far as Mrs. Bronson's interest was concerned for tax purposes?

A. I did.

Q. You told him that before he signed the certificate? A. That's right.

Q. Made that clear to him? A. Yes.

Q. Did he ask you for that information, or did you volunteer it, or how did that come about?

A. Oh, I was representing him as an attorney, and we didn't have a system of cross-examination or me say, "Do you understand [50] this point now?" I was trying to advise him on that, and there were many other implications that come up in regard to the dissolution of that corporation which I considered which haven't been even discussed here, but there were many problems in regard to—if they made extraordinary profits, if the profits went up higher in the corporation, whether or not they were going to leave them in the business, probably, in which case, if they were left in the business and not distributed as dividends, it would be subject to the corporate tax, and then if they later sold it why their interest would only be subject to the limitations of capital assets. Those things were all discussed.

Q. And I understand your approach here, Mr. Martin—and if I am wrong, please correct me—that you had in mind whether certain assets should be taken from the Warrenton Shingle Company and put into a partnership. Is that right?

A. If I understand your question correctly, my

(Testimony of Carey Martin.)

principal concern was the whole general picture and their activities, the way they were operating and the way they hoped to operate, what was the best kind of a business arrangement for them. And, as a lawyer, I discussed and advised, and they decided.

Mr. Garland: All right. That is all.

Mr. Erwin: I think Mr. Garland may be confused, and, if so, I don't want to leave any confusion in the Court's mind. [51]

Redirect Examination

By Mr. Erwin:

Q. As I understand, there were two separate entities, and one was the Parkdale Lumber Company and the other was the Warrenton Shingle Company?

A. That's right.

Q. And the Parkdale Lumber Company was set up as the limited partnership?

A. Yes, that's right.

Mr. Garland: There is no confusion in my mind.

Recross-Examination

By Mr. Garland:

Q. You had three things to consider, did you not—whether or not you should change the Warrenton Company to a partnership—that is one—whether or not you should form a new partnership, and how much of the assets of the Warrenton you should put in the new partnership. Isn't that right?

A. Well, I don't think that—I think that we con-

(Testimony of Carey Martin.)

sidered more things than three. We had the facts as they were.

Q. All right. Now, what were they?

A. Well, the fact that they had a corporation over there, of which there were two separate—had always been two separate activities connected with it, one at Warrenton, I assume, since its name was Warrenton Shingle Company, and one some place else that burned, and that was—and at the time I first talked to [52] them—we didn't talk about the size or the amount, or I mean who owned the stock, or that. It wasn't even discussed; but they had this corporation, which had had two activities, of which Mr. and Mrs. Roles had been active in one of them and managed it and been there, and Mr. and Mrs. Bronson on the other. Now, they had both contracted to buy another different operation, and so he comes to me, as I understood it, to advise him in connection with what should be done here, taking all the factors into consideration; so I would think that we probably considered more than three. We may have considered a half a dozen different possibilities, and what would be wise and just, discussed it back and forth, as lawyers and clients do, and this is what was arrived at, although it is clear that—it was my memory of it that it was going to go ahead and form another limited partnership, and that the Warrenton Shingle Company would be dissolved. That was the last I remember of it.

Q. You advised them to do that also?

A. Yes, I surely did—I would say, yes, I did.

(Testimony of Carey Martin.)

Mr. Garland: I think that is all.

Mr. Erwin: I think that is all.

The Witness: Now, I want to make this explanation. I can't remember, and that is what I am trying to think—it is entirely possible when I got that final balance sheet which I had never seen—it is entirely possible that I didn't go through with the dissolution. Now, I can't say as to that. But I [53] do remember this: That a form, just exactly the limited partnership law, or certificate, was drawn up for the Warrenton Shingle Company. Now, as to why that didn't go through, I can't remember whether or not they just didn't get it done or when I saw the balance sheet. When I say that there was something about liquidated dividends or that, I can't remember.

Q. (By Mr. Garland): I don't want to tie you down to something you can't remember, but you have been thinking about this case here, and you have seen this letter, Plaintiff's Exhibit 100, September, 1944, by Mr. Bronson, and he says: "I remember you told me to remind you about the end of the year in regard to the gift tax necessary to include my wife as a partner. I was wondering if this should be taken care of at this time, and, if so, what was necessary to be done." Now, doesn't that stimulate your recollection?

A. Well, yes, it does, very much, but in sort of a different way. I found—and you asked me why it wasn't paid or was or was not paid, and if not, why. I don't have any recollection as to whether or

(Testimony of Carey Martin.)

not there were any gifts or not, but I do remember this, and I had several cases where clients would come in and talk about making gifts to their children, and ask me about the exclusions and exemptions and things like that; and they would go home and make the gift and never tell me anything about it when they should have made a return, so I would say as a matter of practice now the first thing when anybody talks [54] to me about anything having to do with gifts, I say to them, "Now, remember. I am talking about when taxes are due, but if you make gifts you have to make a return even though it is within the exemption."

Q. Your recollection is that there was a gift involved in this case which took a gift tax consideration, at least?

A. No, that wasn't my answer. My answer was I discussed gifts with him, but that wouldn't indicate whether or not, one way or the other, a gift had been made, because I am very careful to warn clients that if there is any gifts involved, as there might have been—I can't say whether there was or not—there must be a return.

Mr. Garland: I think that answers it.

I think that is all.

The Court: In view of the fact that it is now almost 12:25, I think we will adjourn with this witness until two o'clock this afternoon.

Mr. Garland: The Government has no questions concerning this witness.

The Court: He may be excused. That is what I

(Testimony of Carey Martin.)

anticipated, that he would be called, because Mr. Martin has to get back to his office.

(Witness excused.)

(Noon recess.) [55]

The Court: Mr. Bronson, will you resume the stand?

CHARLES D. BRONSON

a witness in his own behalf, thereupon resumed the stand, and, having been previously sworn, testified further as follows:

Direct Examination

(Continued)

By Mr. Erwin:

Q. Mr. Bronson, when we interrupted your testimony, the last question we asked you was with reference to the first insurance policy on the partnership, which you changed? A. Yes.

Q. I will ask you, then, if subsequent policies were carried in proper form in the partnership?

A. Yes, all future policies were made out correctly.

Q. Now, rather than continue that line of questioning, I think it might be well, since Mr. Martin has testified, to go back and ask you for what reason the Warrenton Shingle Company was not dissolved and a limited partnership formed after having talked with Mr. Martin.

A. Well, there were several reasons. All of us

(Testimony of Charles D. Bronson.)

were quite busy. It was during the war, and we couldn't get back and forth too easily or quickly, and I had difficulty getting the proper statements in time, and it just went on and went on and more or less delayed. It is still pending, as far as I know, but we just didn't continue with it. [56]

Q. Did you receive from Mr. Martin, do you recall, the articles of limited partnership of the Warrenton partnership, the forms?

A. No, I didn't receive the forms.

Q. You don't recall having received them?

A. As I recall, I needed those financial statements to prepare his papers, and we just didn't get them to him. That was it.

Q. And your father held how many shares of stock in the Warrenton Shingle Company?

A. One.

Q. And was he to be included in the limited partnership that you intended to form there?

A. No.

Q. Who were to be the partners?

A. Mr. and Mrs. Roles and my wife and myself.

Q. What was the reason, if any, that you intended to form a limited partnership for Warrenton Shingle Company?

A. Well, as I mentioned before, the corporation—there were so few in it that it wasn't working very well. My father—as I understood it, we needed additional members there to hold that one share, and it wasn't necessary for him to be in it at all. He didn't have anything to do with it; and we were all work-

(Testimony of Charles D. Bronson.)

ing closely together, and we just thought that the partnership would be a better arrangement than the corporation.

Q. Was there any reason, as far as you were concerned, to include Mrs. Roles in that [57] partnership?

A. Well, yes. After that episode down at Toledo in which Mr. Roles was gravely injured, it was necessary to have somebody down there that was familiar with the business to operate it.

Q. Of course, I assume she could have operated the business just as well in corporate form as otherwise?

A. Well, I suppose, as far as actual operation was concerned. She wasn't in the corporation.

Q. No financial interest?

A. She owned no stock.

The Court: I think we are getting pretty far afield.

Mr. Garland: I haven't made objection, because I didn't want to take the time to do it. As we are sitting without a jury, I didn't think it was necessary.

Mr. Erwin: I was more or less trying to refresh my memory as to what Mr. Martin had testified to, your Honor, so I could cover the points. I have just kind of forgotten all of his testimony.

Q. Well, let's get back, then, to Parkdale Lumber Company. Would you recall when you started to operate, approximately, when you started to operate the mill at Parkdale? A. March, 1944.

(Testimony of Charles D. Bronson.)

Q. And your agreement, your partnership agreement, had been signed by that time? A. Yes.

Q. Prior to your actually starting [58] operation? A. Yes.

The Court: I should like to find out, where is the partnership agreement? Is this what you call the partnership agreement?

Mr. Erwin: Let me ask. As I say, I have no other agreement, as far as I know.

Q. Was there any other agreement than the certificate we have submitted here, as far as written agreement between the parties?

A. I am not familiar with what that is.

Q. The Judge will show it to you.

A. Yes, there must have been an agreement somewhere where we all actually signed it. This is type-written, here.

The Court: But I mean, this is a copy of an original. Was there any other type of agreement that indicated how much money was to be put into the partnership and how the profits were to be divided and what were the respective duties of the various partners?

A. No. This is a copy of a letter that we had.

Q. (By Mr. Erwin): There was never any other written agreement than the copy you have there?

A. Not that I know of.

Q. As far as you know?

A. Not that I know of.

Q. What was your agreement between yourselves as to the distribution of profits?

A. Just equal distribution. [59]

(Testimony of Charles D. Bronson.)

Q. What was your agreement with respect to the capital contributions?

A. They were to be equal.

Q. And that was reported on your tax returns the same way?

A. The way I understood it, it should have been reported that way, yes.

Q. Do you know whether it was or not?

A. Well, I am sure it was, yes.

Q. Well, now, as a matter of fact, we are into distributions. Maybe I could just ask you: How were distributions of earnings from the partnership made? A. Equal checks to all four of us.

Q. That continued from the inception, from the first distribution until the present time. Is that correct? A. Yes, that's right.

Q. And I neglected to ask you, Parkdale Lumber Company is operating at the present time under the same setup? A. That's right.

Q. And was there any variation from the policy of distributing equal checks? A. No.

Q. Four equal checks were distributed each time? A. Yes.

Q. Each distribution date? A. Yes. [60]

Q. How was it determined when distributions were to be made?

A. There was not just one—when there was enough money in the bank to make a distribution it was made. There was no specified amounts or time.

Q. I will ask you whether or not—I think that

(Testimony of Charles D. Bronson.)

is not necessary. The exhibits speak for themselves. We will withdraw that. Now, on these distributions, Mr. Bronson, from the proceeds of Parkdale Lumber Company, where were your checks from that deposited, in what bank?

A. The First National Bank in Hood River.

Q. And what type of an account was that?

A. Joint account.

Q. With whom? A. With my wife.

Q. And state whether or not you know of your own knowledge where Mrs. Bronson's checks were deposited.

Mr. Garland: I didn't hear that.

Q. (By Mr. Erwin): Whether you know of your own knowledge where Mrs. Bronson's checks were deposited.

A. Yes, she deposited there.

Q. And you were both permitted to check on that? A. No.

Q. Now, have you withdrawn from that account personal money for personal investments in your own name? A. Yes.

Q. Has your wife withdrawn from that account for personal [61] investments in her name?

A. Yes.

Q. Have you withdrawn from that account for investments in your joint names? A. Yes.

Q. Well, now, Mr. Bronson, I want to leave Parkdale for a minute and ask you concerning the Ashbaugh Shingles and Shakes agreement. Perhaps it might be faster if I just asked you to ex-

(Testimony of Charles D. Bronson.)

plain to the Court what you know of that agreement and how it came about.

A. Well, I don't know too much about it, except this Morgan Stark came up here with the object in mind of obtaining shingles for his business down there, and approached the wife with the idea of this partnership. In a few words, that is about all there is to it.

Q. You at that time were not at the Warrenton Shingle Company? A. No.

Q. You were not a member of that partnership?

A. No.

Q. Had no right to govern its policy or control its sales policy or take any part——

Mr. Garland: We will object to what he had a right to do.

Mr. Erwin: That's correct, your Honor. I will withdraw it.

Q. You did not, in any event?

A. I did not have anything to do with it at all.

Mr. Erwin: I think that is all. You may inquire. [62]

Cross-Examination

By Mr. Garland:

Q. Mr. Bronson, you seem to know very little about the Ashbaugh Shingles and Shakes. Is that the impression you wish to leave here?

A. That I——

Q. That you know very little about that partnership?

(Testimony of Charles D. Bronson.)

A. I am willing to tell you all I know.

Q. All right. Let's go into it, then. When did you first meet Mr. Morgan S. Stark?

A. I don't remember the date.

Q. Well, what year was it? '44, '45?

A. '45, I believe, '44.

Q. And Mr. Stark came up here from the Los Angeles area to see you as to whether the Warrenton Shingle Company would sell him shingles. Is that right?

A. Not me in particular.

Q. Well, you knew about it at the time, did you not?

A. Yes.

Q. He was concerned with Mr. Roles, and you knew that?

Mr. Erwin: Just a minute. He is nodding his head.

Q. (By Mr. Garland): Is your answer "Yes" to the last question?

The Witness: Could I have the question again?

(Last question read.)

A. Yes.

Q. (By Mr. Garland): And the Warrenton Shingle Company, through [63] you and Mr. Roles, told Mr. Stark he couldn't have any shingles. Isn't that right?

A. That's right.

Q. And Mr. Stark came back to see you and Mr. Roles and said that he was making arrangements, at least, to purchase the Ashbaugh Shingles and Shakes Company, one of your customers. Isn't that right?

A. Yes.

Q. And you had been sending shingles all the

(Testimony of Charles D. Bronson.)

while to Ashbaugh Shingles and Shakes Company.
Is that correct?

A. I can't say definitely just where these shingles were going. Mr. Roles took care of it.

Q. Mr. Bronson, do you mean to say that you could not know that you had a customer in Los Angeles by the name of Ashbaugh Shingles and Shakes Company?

A. Oh, no. I didn't say that.

Q. Did you have a customer by that name?

A. Yes.

Q. So then Mr. Stark put a proposition up to you and to Mr. Roles, and that was this: that if you would send him shingles he would split the profit of the sale at that end with you—isn't that right—you and Mr. Roles?

A. Split the profit on what?

Q. On the sale of the shingles by him.

A. Not with us. [64]

Q. He didn't make you that proposition?

A. No.

Q. You were selling your shingles to Ashbaugh for the top OPA price, were you not?

A. Yes.

Q. And Mr. Stark didn't tell you that he would be willing to form a partnership with you and Mr. Roles? Did he tell you that?

A. Not that I can recall that he told us that he would form a partnership with us.

Q. Didn't he offer to form a partnership with you and Mr. Roles? A. Did he offer to?

(Testimony of Charles D. Bronson.)

Q. Form a partnership with you and Mr. Roles to split the retail and the price of shingles, the price that he got in California for the shingles.

A. I don't know what kind of offers—I know we weren't interested in the partnership.

Q. Didn't he offer that? Can't you give me a "Yes" or "No" answer to that?

A. Not that I recall.

Q. And didn't you and Mr. Roles tell him, "No," that you were getting the top OPA price and that you couldn't take an extra amount of money under the table—to that effect?

A. We certainly told him that we couldn't take money under the table, yes. [65]

Q. You answered him in that fashion because, in effect, you would be getting more than the OPA price. Isn't that right? A. That's right.

Q. So then Mr. Stark, on behalf of the Beverly Roofing Company of which he was a partner, put a proposition up to you and Mr. Roles and said that he would form a partnership with your wives. Is that a fact?

A. I don't know as he came to us and made that proposition.

Q. You say he did, or did not? Which is it, Mr. Bronson?

A. I said I didn't remember of him coming to me and telling me that he had that proposition in mind.

Q. Is your answer that you don't remember, or that he did not? Which is it?

(Testimony of Charles D. Bronson.)

A. Well, I don't remember the details.

Q. Well, I am not asking the details, just the high spots. Now, isn't that the substance of what took place?

A. That is the substance of what took place, yes.

Q. So then that was agreeable with you and Mr. Roles for a partnership to be formed between the Beverly Roofing Company, who had then taken over Ashbaugh Shingles and Shakes, your former customers, and your wife and the wife of Mr. Roles?

A. Yes.

Q. All right. So that partnership was formed——

A. Yes.

Q. ——on the basis that they would receive, your wife and [66] Mr. Roles' wife would receive 60 per cent, 65 per cent, of the profit on the sale in California of the shingles that you sent to the Beverly Roofing Company. Isn't that right?

A. I don't know that it was 65 per cent.

Mr. Garland: Where is the exhibit?

Mr. Erwin: The exhibit speaks for itself.

Mr. Garland: I want to know whether he knew that at that time, knew about it.

Q. I am going to ask you now, when did you first see that agreement or a copy of it?

A. Well, when did I first see it?

Q. Yes.

A. I haven't the slightest idea when I first saw it.

Q. Before it was executed or afterwards?

A. Afterwards.

(Testimony of Charles D. Bronson.)

Q. After your wife executed it she showed it to you?

A. I don't know that she had the copy.

Q. Is your wife's signature on that paper?

A. I guess it is, yes.

Q. When did you first see that paper that you recall, which purports to be a partnership agreement?

A. I first saw it when he came to Parkdale to have my wife sign.

Q. So your wife signed that, and that is also executed by Mrs. Roles, is it not?

A. Yes. [67]

Q. And, so far as you know, it is duly executed by the Beverly Roofing Company? A. Yes.

Q. And Stark executed it for them as a partner?

A. Yes.

Q. And then the Warrenton Shingle Company started sending them shingles—isn't that right—started sending the Beverly Roofing Company shingles?

A. The Warrenton Shingle Company did, yes.

Q. And you were one of the proprietors and owned 50 per cent of the stock of that company at that time? A. Yes.

Q. And then——

Mr. Erwin: Mr. Garland, I should like to clarify which company he owned 50 per cent of the stock in.

Mr. Garland: The Warrenton Shingle Company.

Q. You didn't have any interest in the Beverly Roofing Company at all? A. No.

(Testimony of Charles D. Bronson.)

Q. Outside of this purported partnership agreement, your wife didn't have any interest in it either, the Beverly Roofing Company? A. No.

Q. So then your wife began to receive checks from the Beverly Roofing Company. Is that right? [68] A. Yes.

Q. And those were deposited in your joint account? A. Yes.

Q. Subject to your withdrawal?

A. And subject to her withdrawal, too.

Q. Now, what services did your wife perform on behalf of the Ashbaugh Shingles and Shakes partnership? What did she do for that partnership to earn that money?

A. Well, she didn't do very much that I know of.

Q. Did she do anything?

A. She took care of Mr. Stark's business at this end. He did a lot of phone calling to improve his supply down there. She took care of that.

Q. Did she go out and get many shingles other than to persuade you to send them to him, or the Warrenton Shingle Company?

A. No, she didn't do that.

Q. So the only services she performed were her powers of persuasion over you, her husband, to send shingles to the Beverly Roofing Company. Isn't that right, Mr. Bronson? A. Yes.

Q. Now, you and your wife were married in 1933. Where were you living at that time?

(Testimony of Charles D. Bronson.)

A. That was in error. We were married in '32.

Q. All right. Make it 1932, if you like. Where were you living at that time?

A. Vancouver, Washington. [69]

Q. Were you born and raised in Washington, the State of Washington? A. No.

Q. Where did you come from before you went there?

A. Dayton, Ohio; born in Dayton, Ohio.

Q. When did you move to Washington, the State of Washington?

A. Oh, when we were married in 1932.

Q. So you remained in Washington from 1932 through 1935? A. Yes.

Q. At that time did you consider yourself a resident of the State of Washington? A. Yes.

Q. Did you vote there? A. Yes.

Q. And own a home there? A. No.

Q. You had a service station. When did you acquire that, Mr. Bronson?

A. About 1933 or '4, along in there.

Q. Well, maybe we had better do it this way. What were you doing when you were married? What were you working at then? A. Nothing.

Q. All right. When did you first start to work after you were married?

A. Oh, three or four months later I acquired a job with [70] Standard Stations, Standard Oil Company.

Q. What were you making then, approximately?

A. Salary?

(Testimony of Charles D. Bronson.)

Q. Yes.

A. Oh, one hundred or one hundred and a quarter.

Q. It took that much to live on, didn't it?

A. Pretty much.

Q. All right. What did you do then after that?

A. Acquired this service station.

Q. So you worked for them up until you acquired the service station in 1934?

A. Approximately, yes.

Q. What money or capital did you have when you were married?

A. At the time I was married?

Q. Yes. Did you have any?

A. Yes, I had some.

Q. How much was it, approximately?

A. I haven't the slightest idea.

Q. Well, did you have \$5,000?

A. Oh, I suppose, approximately.

Q. Well, did you have \$10,000?

A. I don't think so.

Q. Well, then, somewhere between five and ten. Can you get it any closer than that, Mr. Bronson?

A. No, not just offhand, I can't. [71]

Q. Well, \$7,500? Did you have that much when you were married? Now, surely you remember the figures within a thousand.

A. I remember some figures, but then at that particular moment I don't remember.

Q. Would you say it was less than \$7,500?

A. I would say it was around \$10,000.

(Testimony of Charles D. Bronson.)

Q. Well, we finally got that. Now, where did you get—is that the capital that you used in connection with the Gilmore Oil Station?

A. No, we only needed \$500 to get into it.

Q. Gilmore Oil Station only needed \$500?

A. Yes.

Q. Where did you get that? Is that in addition to your \$10,000? A. What I had?

Q. Used, what you had to go into that. Well, how prosperous was the Gilmore Oil Station, Mr. Bronson? How much money did you make on that?

A. Oh, a hundred, two hundred dollars a month, something like that.

Q. Then it takes that much to live on, doesn't it, with two little children?

A. No, I wouldn't say it would at that time.

Q. Well, what did you save out of that amount?

A. I don't imagine we would spend over a hundred dollars a month to live.

Q. A hundred dollars a month to live. Now, did you use some [72] of your income from your property you had before you were married to live on?

A. No.

Q. So all it took you to live up there was a hundred dollars a month? A. Yes.

Q. Did you own your own house? A. No.

Q. Pay rent? A. Rent.

Q. How much rent did you pay?

A. \$25.00 or \$20.00.

Q. Now, then, you conducted that station for a year, about, about a year, wasn't it?

(Testimony of Charles D. Bronson.)

A. Somewhere around there; a little over, I think.

Q. A little over a year. So you would say you accumulated a little over, in a year's time there, about a thousand dollars. Is that what you mean to say—and you saved it?

A. I haven't any idea. I couldn't tell you.

Q. You don't know whether you saved anything or not. Is that right?

A. Out of the Gilmore Oil Company?

Q. Yes.

A. I don't know; no, I don't.

Q. Did you get what you paid for it, what you put in? A. Yes. [73]

Q. Did you get any more? A. No.

Q. Just got \$500. Is that right?

A. Approximately that. I got what was the inventory, and that is all.

Q. Now, what did you do with that money? Where did you put it—have it in the bank account up there? A. Yes.

Q. Did you leave it there, or did you draw it out eventually?

A. I had a bank account, joint account with my father, in Portland.

Q. And how much money did you put in that account? A. From where?

Q. From any source at any time.

A. I don't know.

Q. Just tell me how much money you put in the account with your father and the source of it.

(Testimony of Charles D. Bronson.)

A. Well, I had three or four thousand dollars in there. It varied up and down.

Q. Now, you are talking about the money you had before you were married, aren't you?

A. Not necessarily, no. Now, this money I had, I didn't mean to say I had actual cash. We had money invested in that apartment house over there.

Q. Were you getting income from it, the apartment house? [74]

A. Yes, we were getting income from it.

Q. And was that the money you used, the \$500 you used, to put in the station?

A. It could have—probably came from there, yes.

Q. Now, when did you meet Mr. Roles and under what circumstances?

A. Oh, it must have been six months before—let's see—1935—sometime in 1935 I became interested in doing something different and looking around and had suggested to me a shingle mill.

Q. Who had suggested to you, Mr. Bronson?

A. Mr. Bernard, I believe, who was in the wholesale lumber business in Vancouver.

Q. Did you have any prior experience in the lumber business? A. Yes.

Q. What was the nature of it?

A. Oh, I operated a sawmill.

Q. Where? A. At Estacada, Oregon.

Q. How long?

A. Well, when I was going to school, so I was just there during the summer months.

(Testimony of Charles D. Bronson.)

Q. Your father in the mill business?

A. No.

Q. Family in the mill business? A. No.

Q. So you decided to go into the lumber business in Oregon and then when did you contact Mr. Roles, or did he contact you? [75]

A. I just happened to drop by his mill and go in and talk to him for a second.

Q. And he had a mill where?

A. At Linnton.

Q. You went into his mill with the idea of buying into the mill?

A. No, I just wanted to talk to somebody that was familiar with the shingle business, and went in to talk to him about locations, and so forth.

Q. Well, when did you decide to go into business with Mr. Roles in the lumber business?

A. In the shingle business.

Q. Shingle business, yes.

A. Oh, it was just a few months before we went down to Warrenton.

Q. And you bought the mill then, the two of you?

A. Bought the mill?

Q. Bought the mill, did you?

A. Oh, no. We just started building from the ground up.

Q. And that was the Warrenton Shingle Company? A. Yes.

Q. And so you started to build a mill?

A. Yes.

Q. You and Mr. Roles? A. Yes. [76]

(Testimony of Charles D. Bronson.)

Q. And you put up the capital, as I understand it, of about \$4,400? A. \$4,400.

Q. Did Mr. Roles put up any money?

A. No.

Q. Did your wife put up any money?

A. No.

Q. Did Mrs. Roles? A. No.

Q. So you had the stock issued to you and Mr. Roles and eventually you each owned a half of it. Is that right? A. Yes.

Q. Did you ever declare any dividend?

A. No, didn't make enough money for any dividends.

Q. You took salaries. Is that it? A. Yes.

Q. And what money you made you put back in the business? A. Yes.

Q. But you did acquire considerable money over the period concerned, did you not? It flourished and prospered?

A. The Warrenton Shingle Company accumulated it.

Q. The Company did well after it was started, did it, after the war years? [77]

A. Oh, you are talking about war years now.

Q. And during the taxable years, now.

A. It did well then, but if we are back when it started, it didn't do well then.

Q. When did it start doing so well?

A. Well, 1943 or '4.

Q. About the time you met Mr. Martin?

A. Oh, no.

(Testimony of Charles D. Bronson.)

Q. Before that? A. Before that.

Q. Did you talk to Mr. Martin about the fact that taxes were getting to be a serious matter as far as the Warrenton Shingle Company was concerned?

A. It wasn't serious then.

Q. When did it get to be a serious matter?

A. Oh, along in '43 or '44.

Q. When did you see and talk to Mr. Martin the first time as a client?

A. When we started to go into the Parkdale Lumber Company. That was my occasion for seeing him.

Q. Now, when did the Warrenton Shingle Company purchase the Parkdale plant?

A. In the fall of 1943.

Q. And they took the Parkdale plant in the name of the Warrenton Shingle Company at that time, didn't they? [78]

A. We made an earnest payment from the Warrenton Shingle Company, yes, for the Parkdale Lumber Company.

Q. Well, the Warrenton Shingle Company was the purchaser of the Parkdale plant. Isn't that right?

A. Yes, they—there wasn't any such thing as Parkdale Lumber Company then.

Q. But there was a sawmill, wasn't there, at Parkdale?

A. There was a sawmill at Parkdale.

Q. And the Warrenton Shingle Company purchased it? A. Yes.

(Testimony of Charles D. Bronson.)

Q. Then, as I understand it, you saw Mr. Martin, an attorney here in Portland, about drawing you up a partnership agreement? A. Yes.

Q. To take the Parkdale plant out of the Warrenton Shingle Company and put it in a partnership. Is that right?

A. Well, that is substantially right. It isn't exactly——

Q. Now, Mr.——

The Court: Let him finish.

Mr. Garland: I'm sorry.

The Court: If that isn't exactly right, what is the correct status?

A. We used—because we hadn't formed the partnership up there, we wrote a check on the Warrenton Shingle Company to the bank in The Dalles as earnest money, and then after that we used money from this Bronson log account, which we had [79] established, to buy logs down there at Warrenton for the mill.

The Court: Whose money was that?

A. That belonged to Mr. Roles and myself, that we saved from our salary to establish this separate fund.

The Court: How big was that account?

A. Well, I don't remember the exact size of it, but it would have to be close to \$20,000 to do us any good in purchasing logs.

The Court: How much salary did you get from the Warrenton Shingle Company?

(Testimony of Charles D. Bronson.)

A. Well, I think we were getting along those times around \$500 a month.

The Court: For how long had you gotten that much money?

A. I just don't remember the length of time. I think it is listed, our salaries are listed.

Q. (By Mr. Garland): Now, you paid—when I say “you” I am talking about the Warrenton Shingle Company in which you owned 50 per cent of the stock at this time, and Mr. Roles the other half—now, you paid \$45,000 for the Parkdale plant?

A. We agreed to pay that much.

Q. Did you finally pay that much? A. Yes.

Q. And the money for the down payment was \$20,000—was that it—or ten?

A. The earnest money was ten, and then another ten before we took it over. [80]

Q. And how did you pay the balance of it?

A. The balance of the ten?

Q. No; the balance.

A. Of the \$45,000?

Q. Yes.

A. That came from profits of the Parkdale Lumber Company.

Q. All right. So that the money that went into the Parkdale plant and the assets that eventually got into the Parkdale partnership came from—\$20,000 of it came from Warrenton Shingle Company, either directly or by way of salary that was paid by you, accumulation of salary in the logging account. Is that correct?

(Testimony of Charles D. Bronson.)

A. Yes.

Q. And the balance of the purchase price, the Parkdale, all came from the earnings of the Parkdale, so-called partnership. Is that right?

A. Yes.

Q. Now, who managed and controlled and was proprietor of the Parkdale—now referring to the partnership? A. Who ran the Parkdale?

Q. Who ran that establishment?

A. My wife and myself.

Q. You say your wife and yourself. Now, what experience did she have in running a sawmill?

A. She didn't have any experience and neither did I have much. [81]

Q. You went into the Warrenton business, established Warrenton, about 1935. Isn't that right?

A. Yes.

Q. Now, the Parkdale was established when?

A. In 1944 we started operating.

Q. Then you had about ten years there, didn't you?

A. There is a lot of difference between a shingle mill and a sawmill.

Q. All right. You had experience in the lumber business, ten years' experience in the lumber business, after you left the service station—isn't that right—and some before. Is that correct?

A. Well, if you are going to make the shingle business the lumber business, that's correct, but they are not the same.

Q. Did you consider yourself, Mr. Bronson, an

(Testimony of Charles D. Bronson.)

entire novice when you took over Parkdale, a \$45,000 establishment?

A. Not an entire novice, but I didn't know too much about the lumber business.

Q. Did you think you and your wife were just about on a par as to ability to run the Parkdale?

A. Oh, I probably thought I knew a little more about it than she did.

Q. All right. Now, let's see what services did she render during the taxable years here to Parkdale? Now, what did she do? You tell me. [82]

A. Well, she was there at all times.

Q. Where?

A. We lived right on the mill site.

Q. Was she in the office?

A. No. We didn't have much of an office.

Q. You say it was on the mill site. That is because your home was on the mill site?

A. Yes.

Q. And she was within a few hundred feet of the mill?

A. Yes.

Q. She was in her home taking care of two children?

A. Yes.

Q. Now, what other contribution did she make to the earning of this fifty or sixty thousand dollars in question from Parkdale?

A. Well, at times—I was still interested in the mill at Toledo and I would have to leave. I left it with her. I had no foreman.

Q. What would she do? Would she buy lumber at that time?

A. Buy lumber?

(Testimony of Charles D. Bronson.)

Q. In your absence, would she buy lumber and sell shingles?

A. We were making lumber, not buying lumber.

Q. All right. Would she buy the logs, I had reference to.

A. No, you don't have to buy logs up in that country. You buy them once a year from the Forest Service, and that is the end of it.

Q. I am trying to find out what she did in your absence. [83]

Maybe you can tell me better than by my questions. What did she do in your absence?

A. I was trying to tell you, when we first started, our biggest trouble was manpower, and if I didn't happen to be there she was familiar with the local labor mart, and she was available to hunt down anybody that was necessary to fill a position temporarily, or all the time, as far as that goes.

Q. When you say "hunt down," what do you mean? She was the mother of two children. What did she do?

A. There were telephones there.

Q. She called on the telephone to see if she could get more help. Is that what you mean?

A. Yes.

Q. Took phone calls in your absence?

A. Yes.

Q. That's what you mean. Had she had any experience in the shingle mill business?

A. Only what she was exposed to while we lived at Warrenton.

(Testimony of Charles D. Bronson.)

Q. Nothing independent of that. Now, you were careful with your distributions from Parkdale all the time to draw identical checks—isn't that correct—you and Mrs. Bronson and Mr. Roles and Mrs. Roles? A. Yes.

Q. So that they were all just the same. What did you do that for in your case? [84]

A. What did I do?

Q. Why was that arrangement made in your case? Why didn't you just draw a check to you?

A. Well, I figured we were all equal partners, and the distribution was to be made equally.

Q. Was it because Mr. Mills told you to conduct it that way for tax purposes? A. Mr. Mills?

Q. Or Mr. Martin. A. No, I didn't.

Q. Now, it all got in the joint account, didn't it?

A. Yes.

Q. Some \$62,000 from February, 1945, through October, 1946—is that correct—was distributed—let me finish—was distributed to you and to Mrs. Bronson—that means the two of you in separate checks. Is that correct?

A. I don't know the amounts.

Q. Do you have anything at all in these exhibits to refresh your recollection?

A. Yes, the income tax return would tell how much.

Q. Have you any books here that would show how much distribution you and Mrs. Bronson received from the Parkdale during the taxable years?

A. Have I any books here?

(Testimony of Charles D. Bronson.)

Q. Books or records you can refresh your recollection from and [85] tell the Court how much you received, how much money, you and Mrs. Bronson, during this time here involved. I have a record here that it is approximately \$62,000. Is that approximately correct?

A. I think so, if you have that record.

Q. Maybe a little more than that. That at least figures up hurriedly. Now, the only account you maintained, either you or Mrs. Bronson, was a joint account during that period? A. Yes.

Q. And what bank was that with, please?

A. The First National of Hood River.

Q. Now, you have testified that both you and Mrs. Bronson drew on that account for independent investments. Now, what percentage would you say that Mrs. Bronson drew out and put into her own independent investments?

A. She didn't draw out very much and put in her own independent investments.

Q. Mr. Bronson, isn't it true that she drew approximately 158 checks on that account during that period, and almost all of them for household expenses?

A. Yes.

Q. And that they were minor in comparison to the amount you drew out?

A. That they were what?

Q. And that you drew 217 checks from that account? [86]

Mr. Erwin: What were those figures again?

Mr. Garland: 217 checks.

(Testimony of Charles D. Bronson.)

Mr. Erwin: What was her figure?

Mr. Garland: 158, from our investigation.

Q. Now, the checks you drew in 1944—if this isn't correct, please tell me to the end I will get your "Yes" or "No" answer—\$1500 in a check, next one, twenty-eight fifty, \$2,850, \$1,500, \$2,850, and those checks were for the purchase—drawn by you. Is that correct?

A. I suppose they were.

Q. And they were for the purchase of bonds, government bonds, and for the purchase of a residence put in your joint names. Isn't that true?

A. I can't tell you what those checks were drawn for. That sounds right. I bought a residence, yes, and I bought some government bonds.

Q. Then you drew checks in 1944 on that joint account and 1945 and '6 to Harry Porter. Who is Harry Porter?

A. My wife's father.

Q. What were those checks for?

A. We were investing money in first mortgages that my wife's father took care of.

Q. And those first mortgages, Mr. Bronson, were put in your name, were they not?

A. Yes. [87]

Q. And for that period they amounted to one check here of \$2,450, \$3,800, \$4,000, \$2,150. Are those correct?

A. Sound about right.

Q. Then for the same period and including the period here involved you drew checks—is that correct—checks to yourself to E. M. Adams. Isn't that correct?

A. Yes.

(Testimony of Charles D. Bronson.)

Q. Who is he?

A. He is a stock broker here in town.

Q. And those were for securities, Mr. Bronson, put in your name. Isn't that so? A. Yes.

Q. And they were \$3,500, \$1,875, \$4,256.25, \$2,-156.25. Now, during the same period you drew certain checks of substantial size, at least one of them, to the Guaranty Trust Company. What was that for? A. Insurance.

Q. What kind of insurance?

A. Life insurance.

Q. On your life? A. On my life.

Q. \$6,900.25, \$566.99, \$566.99. That's correct, isn't it? A. Sounds correct.

Q. Then you drew in 1945 another check for \$33,750. You drew it in your name to the postmaster, and that was for bonds, [88] government bonds put in the joint name of you and Mildred Bronson, and that is your wife, Mildred Bronson?

A. Yes. How much money is that?

Q. \$3,750. A. I thought you said \$33,000.

Q. No, I meant \$3,750. Still talking about the same account, in 1945, here is \$10,000 check, payee unknown. Do you have any idea what that is?

A. A \$10,000 check drawn to payee unknown?

Q. You don't recall that. All right. Who is Ardel Lundberg? A. Ardel Lundberg?

Q. Ardel Lundberg. Is that correct? Landberg, maybe. Do you know anybody by that name?

A. No.

Q. Do you know anybody with a name that

(Testimony of Charles D. Bronson.)

sounds like that to whom you may have paid sizeable checks during 1945? For instance, one check is \$1,725, another one of \$10,669.

A. That might be Handel, Lundborg & Patton.

Q. Possibly. What is that?

A. That is for investments.

Q. Investments taken in your names, and checks you drew on the joint account. All right. We will go over those. A. \$1,725?

Q. \$1,725, \$10,669, \$10,470, \$12,800. Do those sound all right to you? [89] A. Yes.

Q. Then in 1946 you drew additional sums for war bonds, here—I mean government bonds—\$6,351.00. Does that check sound right to you?

A. I don't know. I suppose.

Q. All right. Who is Mr. B-o-e?

A. Mr. Boe is the postmaster for bonds, probably.

Q. Those were for government securities, too, weren't they? A. Yes.

Q. Taken in your name. \$5,000, 1946, another \$5,000. And who is T. W. N-o-r-d-b-y?

A. Nordby?

Q. Yes; T. W.

A. I don't know what that is for.

Q. \$1,280.

A. Oh, that is for purchase of a car.

Q. In your name? A. Yes.

Q. All right. Now, that is the only account you had during this period, either one of you, you and your wife? A. Yes.

(Testimony of Charles D. Bronson.)

Q. The only joint account you had?

A. Yes.

Q. No separate accounts. And I think you testified that into that account went all the money received by your wife from the [90] Ashbaugh Shingles and Shakes Company? A. Yes.

Q. You say you considered changing the Warrenton Shingle Company into a family partnership?

A. Into a partnership, yes.

Q. A partnership between your family and the Roles family? A. Yes.

Q. Including your respective wives?

A. Yes.

Q. And you just procrastinated on that proposition. Is that what you mean? You got the papers all drawn and you didn't go back and sign them?

A. I don't know as we had the papers drawn. They might have been drawn up, but we hadn't completed it, no.

Q. Well, were you advised if you made that arrangement there would be a liquidating dividend of some consequence and quite a large tax to pay, and you decided you wouldn't do it that way? Now, isn't that the reason you didn't do it that way?

A. No. All I can remember, it was quite complicated, and at that time we didn't feel we had the time or go to the trouble.

Q. Complicated from the tax point of view. Is that what you mean?

A. No, that is not what I mean. I didn't think about the tax point of view.

(Testimony of Charles D. Bronson.)

Q. Now, as I understand your testimony—and you correct me [91] if I am wrong—you say you were interested in forming a partnership of Parkdale Lumber Company for two reasons. One of them was you wanted to escape personal liability of some kind. Is that right? A. Yes.

Q. On this business?

A. No, not on that business.

Q. What business?

A. I was in partnership with my father and two brothers in an apartment house, and that was the reason for the corporation at Warrenton. These two, the sawmill or shingle business, is a very hazardous business, and I didn't think I wanted to jeopardize my two brothers and father with any such business risk as these two ventures.

Q. In other words, your point was this: You didn't want to have personal liability from Parkdale that might take some of your assets elsewhere. Is that it? A. Some of the assets?

Q. Some of your assets which you had invested with your father. A. Yes, that's right.

Q. You didn't want those touched?

A. That's right.

Q. In case the Parkdale didn't turn out as you figured it would? A. That's right.

Q. Now, is that the reason that you put your subscription to [92] this entire price at \$2,500 and this certificate was filed for state purposes?

A. I don't understand.

(Testimony of Charles D. Bronson.)

Q. That certificate that you have there that has been referred to here as a partnership agreement, and which appears to be a certificate that was filed, or declaration that was filed, of partnership intention. Refer to that exhibit. A. Yes.

Q. What is the number on top of it?

A. 25.

Q. That is Plaintiff's Exhibit 25. All right. Look at it on the second page and third page, and you will see your contribution there, \$2,500. You see where you contributed \$500 there in that certificate—is that correct—to the partnership enterprise?

The Court: It is on the top of page 2.

A. Oh, yes.

Q. (By Mr. Garland): And you say that was to avoid personal liability?

A. That was the intention.

Q. Beyond the amount of your contribution, which you say was \$2,500, whereas, as a matter of fact, you know that the contribution to that partnership which you and Mr. Roles made was of some \$20,000, at least the down payment on the Parkdale plant? A. Yes. [93]

Q. The Warrenton Shingle Company quit sending shingles to the Beverly Roofing Company. Is that true? A. Yes.

Q. And what caused that situation to occur?

A. Mr. Roles is in a much better position to answer the details on that than I am.

Q. Do you know?

(Testimony of Charles D. Bronson.)

A. I know that he owed us \$3,100 on a bought shipment of shingles that he apparently wouldn't pay, so we quit shipping to him.

Q. You collected your money for that?

A. The \$3,100?

Q. Yes. A. No, he still owes it, part of it.

Q. You decided it would be more profitable to the Warrenton Shingle Company to send shingles back to Ashbaugh and establish your own distribution plant in the Los Angeles area—isn't that so—after the OPA ceiling?

A. If he had paid us, I believe we would still be shipping shingles.

Q. Even though the OPA ceiling was taken off?

A. Yes.

Q. That didn't influence you to set up your own distribution business down there, did it?

A. Didn't influence me, no. [94]

Mr. Garland: I think that is all, at the time, at least.

The Court: Go ahead.

Redirect Examination

By Mr. Erwin:

Q. Mr. Bronson, just to clarify the record a little bit, Mr. Garland has been asking about shipments of shingles to Beverly Roofing Company. Did you ever ship shingles directly to Beverly Roofing Company?

A. I didn't know it by that name. I knew it by Ashbaugh Shingles and Shakes.

(Testimony of Charles D. Bronson.)

Mr. Garland: For the purpose of the record, I would like to clear that up. My question in that regard had to do with sending shipping letters to the Ashbaugh Shingles and Shakes Company, of which the Beverly Roofing Company was a partner. Is that correct?

Mr. Erwin: I just wanted to clear that up. If we stipulate those questions do apply, I think it would satisfy it.

Q. Now, Mr. Bronson, Mr. Garland has asked you with respect to the capital distributions from Warrenton Shingle Company, the \$10,000-note Parkdale Lumber Company purchase, or for the purchase of the mill at Parkdale. Were any of the proceeds of the insurance, any of the insurance proceeds, which you received as a result of the fire at Warrenton, did that go into the same transaction?

A. Yes, I imagine that was—well, that \$5,000—it would be [95] half of that amount.

Q. And state why it was that you took the title to the Newell Brothers mill in the name of Warrenton Shingle Company.

A. Well, because the Parkdale Lumber Company wasn't formed at the time.

Q. And the funds that were available for that purpose were in the name of Warrenton Shingle Company, or the logging fund. Is that correct?

A. Yes.

Q. In regard to one item which Mr. Garland mentioned, insurance of \$6,900.25,—I think that is

(Testimony of Charles D. Bronson.)

the figure, but some figure around that—who was the beneficiary on that policy? A. My wife.

Q. Any contingent beneficiaries?

A. My children.

Q. Now, Mr. Bronson, in your deposits to your joint account, your personal joint account at the First National Bank at Hood River, did you have any other income than from Parkdale Lumber Company? A. Yes.

Q. And what other income did you have?

A. Well, from the Warrenton Shingle Company and from this apartment.

Q. From the apartment in Portland?

A. And the one in Vancouver.

Q. And one in Vancouver; and you had independent income [96] besides that? A. Yes.

Mr. Erwin: I think that is all.

Recross-Examination

By Mr. Garland:

Q. Mr. Bronson, what independent income did you deposit in this joint account during the taxable years here concerned other than from Warrenton Shingle Company, the Parkdale Lumber Company, and Ashbaugh Shingles and Shakes Company?

Mr. Erwin: We object to that.

Mr. Garland: I don't mean to infer any conclusion that he had that. What independent income of yours went in aside from those sources?

A. The income from these apartments.

(Testimony of Charles D. Bronson.)

Q. I know. How much, is what I want to know, approximately.

A. I think one of them about \$2,600 from that one, and maybe thirty-six from the other. I am just guessing as to the amount.

Mr. Garland: All right.

Mr. Erwin: The returns show that income.

Mr. Garland: They are in evidence?

Mr. Erwin: Yes.

The Court: Did the Parkdale Lumber Company ever pay back in money to the Warrenton Shingle Company?

A. Yes, the Parkdale Lumber Company paid it back once, but we got a little bit on the bad side at Parkdale, and then took it [97] back again.

The Court: How long ago was that?

A. That was last year.

Mr. Garland: May I inquire on that?

The Court: Surely.

Q. (By Mr. Garland): Was there any accounting between Parkdale and Warrenton?

A. Any accounting?

Q. Yes; any accounting as between these—what I mean to say, did Parkdale ever account to Warrenton for the initial investment?

A. No; I kept both the books up there.

Mr. Garland: That's all.

(Testimony of Charles D. Bronson.)

Redirect Examination

By Mr. Erwin:

Q. When you speak of Warrenton investments, there was only \$10,000 that came from the Warrenton account? A. Yes.

Q. And that was funds made available due to the fact you no longer needed that capital?

A. Yes.

Mr. Garland: \$10,000 came from your logging fund, which represented accumulation of salaries of you and Mr. Roles? A. Yes.

Q. (By Mr. Erwin): That money from the log account was your [98] personal funds?

A. Yes.

Mr. Erwin: That is all.

Mr. Garland: That is all.

(Witness excused.)

The Court: Would you like to put a witness on?

Mr. Garland: Yes; out of order. I didn't know I would need him.

The Court: I told Mr. Pattullo I was going to be a witness in a case, and it will take about a half hour, I understand.

Mr. Garland: This will take only five minutes.

The Court: Have you any objection to that?

Mr. Erwin: No. [99]

PARIS STEWART

was thereupon produced as a witness in behalf of the defendants, and, having been first duly sworn, testified as follows:

Direct Examination

By Mr. Garland:

Q. Where do you reside, please, sir?

A. Portland, Oregon.

Q. How long have you resided here?

A. Since 1928, with an absence of about three years during the war period '40 to '44.

Q. Were you at one time a revenue agent?

A. Yes, sir.

Q. And when did you become an agent and when did you resign?

A. In 1940—I have to stop and think. I was a revenue agent in 1945—no, that's not right; in 1946. Resigned two and a half years ago.

Q. And what is your present occupation?

A. I am business manager of Lewis and Clark College.

Q. Now, when you were a revenue agent, did you investigate the case of Charles D. Bronson, Sr.?

A. Yes, sir.

Q. And what did you do in connection with that investigation?

A. Well, of course, I made an investigation of their books to determine whether a partnership existed, and during the investigation I contacted Mr. Al Boe, who is the postmaster at Parkdale, [100]

(Testimony of Paris Stewart.)

Oregon. He prepared the return, I believe, 1944—now, I am not too sure of the return; and when I spoke to him about the partnership elements in the case, he told me that——

Mr. Erwin: No, no, no. We will object to that.

The Court: Objection sustained.

Q. (By Mr. Garland): Did you talk to an attorney here by the name of Mr. Martin?

A. Yes, sir; Mr. Carey Martin, in his office.

Q. And did he give you—make any statements to you with respect to the partnership investment here and——

Mr. Erwin: The same objection, your Honor, and we want to add the additional ground, your Honor, that the privilege does not extend that far. If there were any statements made at that time there was no showing of the privilege of the client not consented to.

Mr. Garland: If your Honor please, we didn't expect to call this man, and he has lost his files.

Mr. Erwin: And he has also been dismissed.

Mr. Garland: He forgot his files and relied on faint memory. He testified he never talked to a revenue agent about this thing, and he made certain statements and commitments to the revenue agent, and it seems to me if he represented his client he made them on his client's behalf.

The Court: I don't think so, Mr. Garland. Let me ask,——

When did this conversation take place? [101]

A. Somewhere—I am not too sure of the month—around April, May, June, 1947. In that period

(Testimony of Paris Stewart.)

about that time I remember I was investigating the case. I remember it took place in his office.

The Court: Well, he wasn't representing Mr. Bronson at that time.

Mr. Garland: But the conversation, if your Honor please, had reference to the time here pertinent and the time Mr.—

The Court: I don't think a lawyer can make those statements.

Mr. Garland: That is all, Mr. Stewart, and thank you for coming.

(Witness excused.)

The Court: Call your next witness. [102]

Mr. Erwin: We will call Mr. Roles to the stand.

RICHARD C. ROLES

was thereupon produced as a witness in behalf of the plaintiff, and, having been first duly sworn, testified as follows:

Direct Examination

By Mr. Erwin:

Q. Mr. Roles, you were engaged in an enterprise known as Warrenton Shingle Company, were you not? A. Yes, sir.

Q. And what year was that started?

A. We started the mill in '35.

Q. And did you participate in that operation from its inception? A. From the ground.

Q. From the very first?

(Testimony of Richard C. Roles.)

A. From the very first.

Q. And prior to that time what business had you engaged in?

A. I was engaged in the shingle business at Linnton, Oregon.

Q. And did you have any capital to put into this new enterprise, Mr. Roles? A. I did not.

Q. And when were you and Mrs. Roles married?

A. In 1935, January.

Q. In January of 1935?

A. The 5th day. [103]

Q. Was that about the same time that this mill was being formed down there?

A. Yes; shortly after.

Q. Beg pardon? A. Shortly after.

Q. You were married shortly after?

A. Yes.

Q. Where did you first meet Mr. Bronson?

A. I met him when I was working in the mill at Linnton. He come up to see me to ask me questions about the shingle mills.

Q. I don't think we have to go into details. Did that conversation eventually result in getting into details?

A. He didn't have much time to talk to me, because I was working, myself.

Q. Working in the mill yourself?

A. Yes.

Q. And did you have a proprietary interest in that mill? A. Just a one-sixth.

Q. One-sixth interest? A. Yes.

(Testimony of Richard C. Roles.)

Q. And did you liquidate that when you went into the Warrenton?

A. No. I was in with my brothers, and they decided they wanted a new manager.

Q. Wanted a new manager?

A. A new manager. So they got the new manager, and I left to [104] go in business with Mr. Bronson at that time.

Q. You made no attempt to liquidate your interest?

A. No, I did not, because I didn't want to hurt that company.

Q. When you moved to Warrenton, did Mrs. Roles go with you? A. The same day.

Q. The same day? A. Yes.

Q. The same day you were married?

A. No, the same day—we went together that day.

Q. That is when you first started in?

A. First started the business, yes.

Q. Will you advise the Court, Mr. Roles—I don't think I will attempt to limit you. I will just ask you to advise the Court what you and your wife did in regard to services and contributions to the Warrenton Shingle Company.

Mr. Garland: We will object to that. We are not trying the Roles case now.

The Court: I think we have permitted enough background on that when Mr. Bronson was on the stand, now. I don't see any useful purpose in going

(Testimony of Richard C. Roles.)

into the contributions which Mrs. Roles made to the firm.

Mr. Erwin: I think perhaps it will be somewhat cumulative, your Honor. However, I will advise the Court at this time that we will have some authorities to submit to the Court based on the dealings of the parties prior as it relates to intention, [105] and intention to divest themselves of the capital which went into the capital at a later date. It shows a business interest. It will be largely cumulative, as to what Mr. Bronson has already said, but Mrs. Roles performed a great deal of service for the Warrenton Shingle Company.

The Court: We have been letting everything in, but I don't see any useful purpose in this.

Would your testimony be substantially the same as was Mr. Bronson's testimony?

A. Not—maybe I don't understand the question.

The Court: Take five minutes on this point.

Q. (By Mr. Erwin): All right. What did your wife do for the corporation, and yourself?

A. Well, she kept boarders and kept the books and wrote out manifests for shipments, and answered telephone calls, and——

Mr. Garland: That is Warrenton?

A. That is Warrenton; and also Toledo.

Q. (By Mr. Erwin): In other words, she took an active part, a managerial?

A. A very active part.

Q. All right. I think that is sufficient. And that continued right down to the present time?

(Testimony of Richard C. Roles.)

A. Right down.

Mr. Garland: You are going to fix it so we are going to have to go into this.

Mr. Erwin: I assumed the matter was one you wanted me to [106] lead the witness on in order to get to the point.

Mr. Garland: That isn't the way I want you to lead him.

The Court: Let's go ahead.

Q. (By Mr. Erwin): Mr. Roles, in 1941 you purchased the Toledo mill. Is that correct?

A. That's correct.

Q. The Warrenton Shingle Company,—those funds came from the Warrenton Shingle Company?

A. Not all of them.

Q. Where did some of the funds come from?

A. \$1,500 from my wife.

Q. Your wife? A. Yes.

Q. Contributed some to the Toledo enterprise?

A. For the Toledo operation.

Q. Was that by way of additional stock?

A. No. She furnished that much money to go into that.

Q. Was that because you didn't have sufficient capital of your own?

A. Because I didn't have enough to go ahead, or the Company couldn't afford to go ahead.

Q. That was \$1,500? A. That's right.

Q. Well, now, at the time you purchased the Toledo mill, did you move your residence, you and Mrs. Roles? [107] A. Yes, we did.

(Testimony of Richard C. Roles.)

Q. And you moved where? A. To Toledo.

Q. And Mr. and Mrs. Bronson remained at Warrenton. Is that correct? A. Yes, we did.

Q. And you moved where? A. To Toledo.

Q. And Mr. and Mrs. Bronson remained at Warrenton. Is that correct?

A. Remained at Warrenton.

Q. Until the fire which occurred in——

A. That's right.

Q. ——1943? A. October, '43.

Q. What happened immediately after the fire of 1943, Mr. Roles?

A. Well, we immediately went over to Warrenton.

Q. Just tell the Court what took place there.

A. Of course, while we was there we couldn't think much only about the fire, what we had lost, and then after we got over the shock of losing it we talked about buying other mills, so my partner and my wife would have a job to do. There wasn't enough at Toledo, so we traveled different places and looked at other mills we had prospects of.

Q. When you say "we," whom do you mean?

A. Mr. and Mrs. Bronson and my wife and I, and we finally found out about Parkdale and settled on that. . .

Q. Was that Parkdale investment discussed?

A. Invested in what?

Q. Was that Parkdale investment discussed between—— A. Oh, definitely.

(Testimony of Richard C. Roles.)

Q. Who was there during those discussions?

A. The four of us.

Q. Did you and Mrs. Roles and Mr. and Mrs. Bronson sit in on those discussions as well?

A. That's right.

Q. When was your accident, Mr. Roles?

A. December 4th, 1941.

Q. And that was while you were working at——

A. Toledo.

Q. ——Toledo? A. That's right.

Q. That would be shortly after you purchased it? A. Right after.

Mr. Garland: If the Court please, we can't see the relevancy that this man suffered an accident. Apparently the testimony here is about Warrenton Shingle Company and has to do with what this gentleman and his wife contributed. True, Mr. Erwin represents him eventually in a tax case, don't you?

Mr. Erwin: Yes. [109]

Mr. Garland: But I would rather not try it here today. It hasn't been arranged for.

Q. (By Mr. Erwin): Well, Mr. Roles, you did eventually, then, purchase the Parkdale mill?

A. That's right.

Q. And let me ask you, did you talk to Mr. Martin about that? A. Mr. Bronson?

Q. Mr. Martin, the attorney who testified here.

A. I believe I was only there once.

Q. You believe you were there only once?

A. I am not too sure about that.

(Testimony of Richard C. Roles.)

Q. Was there any discussion concerning the partnership agreement?

A. Oh, yes, definitely.

Q. Whom was that discussed by, and where?

A. That was discussed—it was either here in Portland or Mr. Bronson's home, and I just can't—you see, I was busy in Toledo, and we had to come on those trips to talk about those things, and what hotel or what house I just don't remember.

Q. Well, it was discussed some place among the four of you? A. That's right.

Q. Prior to the time of entering into that agreement. Is that correct?

A. That is, definitely.

Q. And it was agreed between the four of you that you would enter into a partnership agreement? [110] A. That's right.

Q. What was your agreement as to services to be contributed and capital to be contributed, and how were you to share profits?

Mr. Garland: May I inquire here before he answers what agreement?

Mr. Erwin: Any agreement.

Mr. Winter: The Parkdale agreement is in evidence.

Mr. Garland: If you are asking him for the oral agreement, there is nothing in evidence other than the certificate of declaration. Do you contend that, as a matter of law, is an agreement?

Mr. Erwin: Yes.

Mr. Garland: Then the agreement speaks for it-

(Testimony of Richard C. Roles.)

self, and we object to the testimony, if it is an agreement under the law.

Q. (By Mr. Erwin): Let me ask you, Mr. Roles—we will have to get at it another way—was there any other written agreement between the partners other than this that has been referred to?

A. You mean about Parkdale?

Q. Yes. A. No, no others.

Q. Was there an oral agreement?

A. That we would form a partnership.

Q. That you would form a partnership. Was there a discussion as to the obligations or capital contributions of the parties?

Mr. Garland: Just a minute, your Honor. He is leading him [111] to try to get him to say.

The Court: Overrule the objection, and make your questions less leading.

Q. (By Mr. Erwin): I think you testified there was an oral agreement.

Mr. Garland: He did not.

Q. (By Mr. Erwin): Was there an oral agreement, then, Mr. Roles, concerning the partnership?

A. You mean before we signed the partnership papers?

Q. Yes.

A. Yes, definitely. We talked that over thoroughly.

Q. All right. And what was the agreement?

A. The agreement was that we would all go in as partners and divide this Parkdale up equally between all.

(Testimony of Richard C. Roles.)

Q. And what was the reason for your taking in the wives, if any?

A. Well, the primary reason was to have somebody up there at each place to take care of business when Mr. Bronson was gone. I had to have somebody there to know the ins and outs of that mill if he had to be away or happened to get hurt or something.

Q. How far is Toledo from Parkdale, if you know?

A. It is 270-some odd miles; from my house.

Q. Was there any discussion about who was to operate the Parkdale mill?

A. Oh, yes, definitely. They was—Mr. Bronson was chosen [112] to operate the mill up there.

Q. And you were to remain?

A. At Toledo.

Q. And operate at Toledo. And has that arrangement continued from that time to date?

A. That's right.

Q. Mr. Roles, now in regard to the distribution of the earnings of the Parkdale Lumber Company, do you know how the distributions were made?

A. Yes.

Mr. Garland: That has already been testified to, your Honor.

Mr. Erwin: It has by another witness. If you will pardon me, I will waive that question and ask him directly,—

Q. Were these checks that were distributed to

(Testimony of Richard C. Roles.)

you on each of the distribution dates endorsed by you and deposited in some account?

Mr. Garland: We object to that. Checks payable to this gentleman, endorsed by him, have nothing to do with the lawsuit here.

The Court: There is no contention that he or his wife or both of them didn't get that money, is there?

Mr. Garland: In the way in which the testimony has developed, it did already. We don't say there were no distributions.

Mr. Erwin: That is a point—I don't know what the Government contends, your Honor. They seem to have some reservation. [113]

Mr. Garland: I think it is apparent they meticulously distributed it check for check, and as far as Mr. Bronson, it was taken out in his own name.

The Court: Mr. Roles isn't concerned here.

Mr. Erwin: They had the individual right to control their own funds. That's the point.

Mr. Garland: This witness can't testify Mrs. Bronson had the right to control her own funds.

Mr. Erwin: He wasn't asked to testify to that.

The Court: Go ahead.

Q. (By Mr. Erwin): Mr. Roles, did you and your wife make investments from your personal account?

Mr. Garland: That is objected to as immaterial.

The Court: Well, I think I am going to go now, and we will take a recess for a half hour, and in the

(Testimony of Richard C. Roles.)

meantime—I think we can finish this today, because we can keep on going until we finish.

Mr. Erwin: Very well.

(Recess.)

(Last question read.)

Mr. Erwin: We will withdraw that question.

Q. What was the reason for making Mrs. Roles and Mrs. Bronson partners in the Parkdale Lumber Company, if any?

Mr. Garland: I think that has been answered, hasn't it?

Mr. Erwin: I don't know whether I asked it of this witness. [114]

The Court: Not from this witness.

Mr. Garland: I object to that. It isn't a question of what this man intended.

Mr. Erwin: This is a four-way partnership. It is the intention of all four partners.

Mr. Garland: The intention of the taxpayer and his wife may be a matter to be gone into, but the intention of Mr. Roles and his wife is nothing that we have to concern ourselves with in this case.

The Court: Well, I think that I am going to let this evidence in as it affects the whole scene, although I think everyone here realizes that such testimony is not the best type of testimony as compared with what the parties did, because it is merely a self-serving declaration and may be construed that way.

(Testimony of Richard C. Roles.)

Mr. Erwin: Your Honor, of course, it is a question of intent.

The Court: I am going to let him answer.

(Last question read.)

A. Well, our primary reason was that they were thoroughly familiar with the business, and we wanted somebody that could fill in when we was gone, and we can't always be there, and that was the main reason, one of the main reasons, of getting the women into the partnership.

Q. (By Mr. Erwin): Did you know, Mr. Roles, of the intention or did you know of any negotiations regarding the dissolution [115] of the Warrenton Shingle Company and formation of a limited partnership there?

A. Well, I think Mr. Bronson spoke to me about that also.

Q. Was that discussed, do you recall?

A. That was discussed, whether we should do that, and the last I heard, we were going to, but we didn't, and I don't know why.

Q. You don't know why?

A. No, because I was down there and wasn't up here.

Q. There was a discussion of that question?

A. That's right.

Q. And did that discussion involve both Mr. and Mrs. Bronson and Mrs. Roles and yourself?

A. Yes, it did.

Q. Now, Mr. Roles, as to Ashbaugh Shingles

(Testimony of Richard C. Roles.)

and Shakes income, when did you first become acquainted with Mr. Stark?

A. As near as I can remember, that was the first part of '45.

Q. And will you tell the Court what happened, when you met him, how you came to meet him, and so forth?

A. Well, during that time there was a number of shingle buyers coming up from Los Angeles and California and wanting to buy, and, of course, he was just one of them. As far as I was concerned, I didn't make no agreement, told him I couldn't send him shingles, that I was already selling to the government and Reliance and Ashbaugh, and different customers, and so then [116] he—that was the first interview. Well, then, he was gone possibly three or four weeks, and come back up and wanted to know if he could—if he would buy out Ashbaugh's if we would deal with him, and I told him, no, we couldn't do that; we had other commitments. And so it went along, and then he formed this partnership with the girls, and we didn't sell him all of our shingles after that; maybe half of them.

Q. Well, now, you say when "he formed this partnership with the girls." You are speaking of Mrs. Roles and Mrs. Bronson?

A. That's right.

Q. Do you know how that came about? Were you contacted in that regard?

A. No, not until after he had approached them. He approached my wife.

(Testimony of Richard C. Roles.)

Q. How did he become acquainted with Mrs. Roles?

A. Well, him and his wife come up to our house and stayed there one—no, they stayed at the hotel and visited back and forth, and that was brought up at that time.

Q. That was on a previous occasion that he had come up to——

A. That's right.

Q. ——to purchase shingles. Is that correct?

A. Yes.

Q. And did he contact you prior to contacting Mrs. Roles concerning this?

A. Well, he had contacted me several times about buying shingles, [117] but I couldn't sell to him under the agreements I had, under the OPA, and all this, and there was nothing said about other prices than that.

Q. Prior to the time that Mrs. Roles entered into this agreement with him, did he discuss with you his intention to take the wives in as partners?

A. Well, I don't think he did with me.

Q. You say you don't think he did?

A. I don't remember him approaching me on that subject until he had this all planned out.

Q. Yes. I say, he had it planned out. But did he contact you prior to planning it out?

A. About this deal?

Q. Yes; with Mrs. Roles and Mrs. Bronson.

A. No, no.

Q. Do you know whether he talked to you about

(Testimony of Richard C. Roles.)

this agreement before he actually received Mrs. Roles' signature on the document?

A. Oh, yes. I think he had.

Q. And had you and Mrs. Roles then discussed whether or not it would be advisable for her to enter into that partnership?

A. Yes, I and my wife had discussed that some.

Q. And will you tell the Court what the nature of that discussion was?

A. Oh, I wasn't going to stand in the way of her making a little if I could, and so I told her to go ahead and do that providing [118] it was legal from the attorneys' standpoint.

Q. Did you get an opinion from the attorneys?

A. I think so. I can't say that. I don't know that we did, other than their own attorney.

Q. Other than their attorney? A. Yes.

Q. Did he tell you that their attorneys had been consulted about the matter?

A. That's right; yes.

Q. Do you know Mr. Frank Belcher?

A. I never met the man in my life.

Q. Did you know that he was connected in some way? A. I knew he was Morgan's attorney.

Q. You knew he was connected?

A. By hearing him say it, yes.

Q. Did you receive personally any income from Ashbaugh Shingles and Shakes?

Mr. Garland: We object to that.

The Court: Objection sustained. He is not connected with this case. What he received personally

(Testimony of Richard C. Roles.)

would have no effect upon this case at all. You may ask that question of Mr. Bronson, but I don't see what Mr. Roles would have to do with it.

Mr. Erwin: Well, your Honor, as I understand the picture, the government is contending this was not a bona fide partnership, and the two members of that partnership were Mrs. Roles and Mrs. Bronson, and I think it would be material as to whether [119] or not—and I understand the government is making some contention that it was an indirect assignment of income of Warrenton Shingle Company.

Mr. Garland: Will counsel just let us say what the government contends? We would be happy and less confused. We contend this is an assignment of income in substance and effect, and we are not talking about Mr. Roles' income right now, either, and that is the basis of our objection.

Mr. Erwin: I think we would ask for a ruling on that, your Honor.

The Court: I will tell you what I am going to do. I am going to let you answer it, but I will tell you right now I am wholly unimpressed with this line of testimony and the arrangements they have made from these two witnesses, but you may go ahead.

Mr. Erwin: What was the question?

The Witness: I know the question.

Mr. Erwin: If you know it, go ahead.

A. I would say "Yes," from Ashbaugh Shingles and Shakes to the extent of our mill invoices; noth-

(Testimony of Richard C. Roles.)

ing more. What she got I had nothing to do with it.

Q. (By Mr. Erwin): Did Warrenton Shingle sell Ashbaugh Shingles and Shakes at the standard price?

A. That's right; and that is all we got out of the deal was Warrenton Shingle Company, me and Mr. Bronson. Of course, [120] we got paid for those invoices, and that is all we made out of that deal.

Q. That is the same as you would with any other customer? A. That's right.

Mr. Erwin: I think that is all. You may inquire.

Cross-Examination

By Mr. Garland:

Q. Did Mrs. Roles take an active part in the management of the Parkdale Lumber Company?

A. Did I?

Q. Did Mrs. Roles? A. Why, yes.

Q. What did she do?

A. Well, very often we had our conferences together and about timber conditions, business conditions and timber sales and buying.

Q. We are talking about Parkdale.

A. That's right. We are talking about Parkdale.

Q. Did Mrs. Robles spend any time in Parkdale?

A. Oh, we was up there on an average of four to five times a year.

Q. Four or five times a year?

(Testimony of Richard C. Roles.)

A. Yes; called in there,—and I can't say exactly how many times, but there was a number of times to go there on business.

Q. Did she work there?

A. Work there? [121]

Q. Yes. A. When we was there.

Q. Four or five times a year?

A. We went over the business conditions at the mill.

Mr. Garland: That is all.

Mr. Erwin: That is all.

(Witness excused.) [122]

Mr. Erwin: Call Mrs. Bronson.

MILDRED P. BRONSON

was thereupon produced as a witness in behalf of the plaintiff, and, having been first duly sworn, testified as follows:

Direct Examination

By Mr. Erwin:

Q. Mrs. Bronson, since it is fresh in my mind, I think I will ask you first about Ashbaugh Shingles and Shakes income. Did you provide any services to the Ashbaugh Shingles and Shakes partnership of any nature, and, if so, just tell the Court what, if anything, you did in that regard.

A. Signed the checks.

(Testimony of Mildred P. Bronson.)

Q. Just endorsed the checks? A. Yes.

Q. You mean the checks given to you?

A. Yes.

Q. Did you do anything in a business way for that firm at all? A. No.

Q. You did, however, enter into that agreement the partnership agreement? A. Yes.

Q. And how did that come about? What were the circumstances concerning the signing of that agreement, if you will just tell the Court?

A. He and his wife came to our place—is that what you mean? [123]

Q. Well, just whatever happened.

A. ———and talked over what his plans were, and Mrs. Roles and I just accepted the fact that it was a good way to make a little money, and we signed the papers that he had made out.

Q. You mean that was all there was to the conversation? A. That is all there was.

Q. And did he come to Parkdale, or was that at Warrenton? A. He came to Parkdale.

Q. He came to Parkdale. And then you did receive distributions by way of check?

A. Yes.

Q. Now, what were your duties, if anything, in connection with the business operation known as Parkdale Lumber Company, Mrs. Bronson?

A. When my husband wasn't there, I was available to give them, give the millwright the right to do whatever—when he wanted to know something, he asked me so that I would give him the authority

(Testimony of Mildred P. Bronson.)

to do it, and answering the phone was necessary then. We at no time have had a stenographer, and all the information they wanted to know came to the house where I was.

Q. And your home is located on the mill site. Is that correct? A. Yes.

Q. Closely adjacent to the mill? A. Yes.

Q. Now, were there discussions involving the operation of the [124] mill office carried on in the mill office, or in your home? A. In our home.

Q. And were you expected to do any physical work, bookkeeping or anything of that kind?

A. No.

Q. Were you consulted before the Parkdale Lumber Company was purchased in regard to the purchase of that? A. Yes.

Q. Where did that discussion take place, Mrs. Bronson? A. At our home in Seaside.

Q. And at that time was there a discussion of a partnership or the form of organization which you would adopt after the purchase of that mill?

A. I don't remember exactly just what did go on, just have a faint recollection then.

Q. What do you remember about the partnership and how it happened to include you?

A. Since that bad accident that Mr. Roles had in Toledo, why it seemed that since the mills were so far apart why it would be a good idea to have another partner there in case the same thing or a similar accident would happen to my husband.

(Testimony of Mildred P. Bronson.)

Q. Was that discussed as one of the reasons before this partnership agreement was entered into?

A. Yes.

Q. And the four of you were there when that was discussed? [125] A. Yes.

Q. Was there any other reason that you can think of that was discussed at that time for having you as a partner in the Parkdale Lumber Company in anything you remember, Mrs. Bronson? Will you just tell the Judge what you remember about the Parkdale agreement and discussions?

A. There was a lot, but I don't know.

Q. You cannot remember any of the details of it? A. No.

Q. Now, was it a customary thing that the source of the operation—I mean the details of the operation of the Warrenton Shingle Company had been discussed in your presence?

A. Would you state that question again?

Q. Was it a customary thing to discuss the details of the operation of the Warrenton Shingle Company in your presence? A. Yes, it was.

Q. Those discussions were between whom?

A. The four of us, Mr. and Mrs. Roles, and Mr. Bronson, and myself.

Q. And it had always been done pretty near since you started in business, of course?

A. Yes.

Mr. Erwin: I think that is all.

Mr. Garland: I have no questions.

The Court: I should like to ask a question.

(Testimony of Mildred P. Bronson.)

How much of your own money did you put into the Parkdale Lumber Company? Did you have any money? A. No.

The Court: When you married Mr. Bronson, did you have any money of your own?

A. Just a hundred dollars.

The Court: And were you employed any place else besides—did you have independent employment after you were married? Were you working for anybody?

A. After I married—no. Then I started to raise my family.

The Court: And you have two children?

A. Three.

The Court: Oh, three children. The details of operation which you discussed with Mr. and Mrs. Roles and your husband,—they didn't come down very often, did they? A. Roles, you mean?

The Court: Yes.

A. Yes, they did. I mean they came four times a year, if you call that very often.

The Court: And that was the only time you discussed? A. Oh, over the phone, too.

The Court: Did you discuss with them the question of how much interest you should pay for bank loans and things of that kind?

A. I don't understand that. [127]

The Court: Did you discuss with them the financing of the business and how much money you were to borrow from the bank and on what terms?

(Testimony of Mildred P. Bronson.)

A. Well, perhaps I wasn't too involved in that.

The Court: Were you acquainted with the price of lumber and shingles, or lumber, at this particular time during the years '44, '45, and '46?

A. Well, it changed pretty often. I'm afraid I didn't keep up with that.

The Court: All right.

Mr. Garland: I might ask one question, if you please.

Cross-Examination

By Mr. Garland:

Q. You say that the only thing you did, so far as Ashbaugh Shingles and Shakes were concerned, was endorse the checks? A. Yes.

Q. And by that you mean all of the checks that you received during the taxable years '44, '5, and '6. Is that what you mean? You endorsed all the checks? A. Well, all of the checks.

Q. That were sent to you? A. Yes.

Q. And you turned them over to your husband, and he put them in the joint account?

A. That's right. [128]

Mr. Garland: All right. That's all.

Mr. Erwin: Mrs. Bronson, let me ask you a question or two.

Redirect Examination

By Mr. Erwin:

Q. Give me the name of the logging foreman that was employed by the Parkdale Lumber Company.

(Testimony of Mildred P. Bronson.)

A. Right at first?

Q. Any time.

A. Roy Stearns and now it is Buzz Gray.

Q. Was he employed to start with?

A. Yes.

Q. Which one to start with?

A. Roy Stearns.

Q. Roy Stearns was employed at first?

A. Yes.

Q. Give the Judge the names of some of the employees up there and what their occupations were.

A. Oscar Stearns is a millwright, and he has been with us all the time. The sawyers have changed.

The Court: I might tell you, Mr. Erwin, that my wife usually knows the names of my secretaries and a lot of other people.

Mr. Erwin: I think that is a little different than in a lumber mill.

Mr. Garland: May I make this statement to counsel. Do [129] we understand that you contend this lady ran that sawmill?

Mr. Erwin: We certainly do not.

Mr. Garland: That is what I thought.

Mr. Erwin: Her duties are certainly different than that.

Recross-Examination

By Mr. Garland:

Q. Mrs. Bronson, do you consider yourself a mother and a good housekeeper, or a good business woman and responsible in either one of these partnerships?

(Testimony of Mildred P. Bronson.)

A. I am a mother and a pretty good housekeeper, but the town keeps me pretty busy, too.

Mr. Garland: That's all.

(Witness excused.)

Mr. Erwin: Mrs. Roles.

JANET ROLES

was thereupon produced as a witness in behalf of the plaintiff, and, having been first duly sworn, testified as follows:

Direct Examination

By Mr. Erwin:

Q. Mrs. Roles, what part did you have in the operation, if any, of the Warrenton Shingle Company?

Mr. Garland: I think that is objected to, your Honor.

The Court: Well, I have let it in before.

Mr. Garland: I make still this further objection.

The Court: And it is not going to take very long, because Mrs. Bronson wasn't on the stand very long.

Mr. Erwin: That's right.

The Court: Go ahead.

A. At the very first?

Q. (By Mr. Erwin): Just as it happened.

A. Well, we went down there, I and my husband, and they broke the ground and started the mill, and

(Testimony of Janet Roles.)

I had some millwrights, construction men, that had to be fed, and so I cooked three meals a day for them, and then I had to make out invoices, and I answered the phone whenever Mr. Bronson was away, had to be away.

Q. You are speaking of Warrenton? [131]

A. That's right.

Q. Now, did you continue doing the work of that nature right on through?

A. That's right; that's right.

Q. Have you taken any part at all in the active supervising of the Parkdale Lumber Company?

A. I have to sign the timber sales contract—all four of us have to sign that—and that is very important. I mean they couldn't operate without timber, and if they have any discussion as to how the business is, change of policy, or orders or what-not, it is discussed with the four of us. After all, we are equally concerned in it.

Q. But I was particularly speaking, Mrs. Roles, of active management. In other words, whether you went out and actually——

A. No, oh, no.

Q. Did you make out invoices for the mill?

A. Parkdale?

Q. Yes. A. No.

Q. You were not on the site there. Is that correct? A. That's right.

Q. Now, you may tell the Court, if you will, what discussions took place concerning the formation of the Parkdale partnership.

(Testimony of Janet Roles.)

A. Well, we discussed the values of the partnership in this respect. We were well acquainted, and we figured that a four-way [132] partnership would be very agreeable, especially since it has been proven. When my husband had an accident I had to take over, and it was to the benefit of the Company to have someone personally interested in the Company on the spot at the time, and that could very easily happen in a very hazardous occupation. That was a consideration, a great consideration.

Q. Was that the only discussion that took place concerning the reasons for including you as a member of the partnership?

A. For including me?

Q. You and Mrs. Bronson.

A. Yes, I believe so.

Q. You have worked with your husband in the operation of the Warrenton Shingle Company?

A. Yes, that's right.

Mr. Erwin: I think that is all.

Cross-Examination

By Mr. Garland:

Q. Mrs. Roles, were you an officer of Warrenton Shingle Company? A. No, sir, I was not.

Q. Mrs. Bronson, was she an officer of the Warrenton Shingle Company? A. Officer?

Q. President, Vice-President?

A. She is now.

Q. Was she during the years here in question?

(Testimony of Janet Roles.)

A. I don't believe so.

Q. '44, '45, and '46?

A. I don't believe so. I wouldn't be certain, though.

Q. Did you have the power to draw checks on the Warrenton Shingle Company?

A. No, I didn't.

Q. Or on Parkdale?

A. To write checks?

Q. Yes. Did you write checks?

A. No.

Q. Did Mrs. Bronson?

A. I don't believe so.

Q. Your husband testified a moment ago you put \$1,500 of your own money in Warrenton. Is that correct?

A. That's correct.

Q. Where did that money come from?

A. I borrowed it.

Q. You borrowed it? A. Yes.

Q. Where? A. From my mother.

Q. On a note? A. Yes.

Q. Did Mr. Roles sign the note, too?

A. I don't remember. [134]

Mr. Garland: That is all.

Mr. Erwin: That is all, Mrs. Roles.

(Witness excused.)

Mr. Erwin: That is the plaintiff's case.

We will ask the Court to take judicial knowledge of the Oregon law in regard to limited partnerships and Washington law in regard to community property.

The Court: We will take judicial knowledge of that.

And that is your case, too?

Mr. Garland: Does plaintiff rest?

Mr. Erwin: Plaintiff rests.

Mr. Garland: Defendants rest, too.

(Thereupon counsel argued the case to the Court in behalf of their respective clients, following which the trial of the above-entitled cause was adjourned.) [135]

[Title of District Court and Cause.]

REPORTER'S CERTIFICATE

I, Catherine Mulvey, Official Reporter of Department No. 8 of the Circuit Court of the State of Oregon, Fourth Judicial District, certify that I have transcribed into typewriting the stenograph notes taken in the trial of the above entitled cause of Glenn G. Foster, Official Reporter of the above entitled Court, now deceased; and that the foregoing and hereto attached 135 pages of typewritten matter, numbered 1 to 135, both inclusive, contain a full, true, and accurate record of the stenograph notes of the said Glenn G. Foster, deceased, taken upon the trial of the said cause.

Dated at Portland, Oregon, this 11th day of December, 1950.

/s/ CATHERINE MULVEY.

United States of America,
District of Oregon—ss.

CERTIFICATE OF CLERK

I, Lowell Mundorff, Clerk of the United States District Court for the District of Oregon, do hereby certify that the foregoing documents consisting of complaint, answer, pre-trial order, findings of fact and conclusions of law, objections to proposed findings of fact and conclusions of law, order denying motion of plaintiff for a new trial, and overruling objections to proposed findings of fact and conclusions of law, judgment, notice of appeal, bond on appeal, designation of contents of record, order for clerk to forward exhibits, transcript of docket entries, and clerk's certificate constitute the record on appeal from a judgment of said court in a cause therein numbered Civil 5299, in which Charles D. Bronson, Jr., is plaintiff and appellant, and Hugh Earle, Collector of Internal Revenue for the State of Oregon, and the United States of America, are defendants and appellees; that the said record has been prepared by me in accordance with the designation of contents of record on appeal filed by the appellant, and in accordance with the rules of this court.

I further certify that there is enclosed herewith duplicate transcript of testimony dated July 11, 1950, filed in this office in this cause, together with exhibits 10 to 27 inc., 29, 32, 35, 38 to 42 inc., 108. 123 to 129 inc.

I further certify that the cost of filing the notice of appeal is \$5.00 and that the same has been paid by the appellant.

In Testimony Whereof I have hereunto set my hand and affixed the seal of said court in Portland, in said District, this 3rd day of February, 1951.

[Seal] LOWELL MUNDORFF,
Clerk,

By /s/ P. L. BUCK,
Chief Deputy.

[Endorsed]: No. 12846. United States Court of Appeals for the Ninth Circuit. Charles D. Bronson, Jr., Appellant, vs. Hugh Earle, Collector of Internal Revenue for the District of Oregon and United States of America, Appellees. Transcript of Record. Appeal from the United States District Court for the District of Oregon.

Filed February 5, 1951.

/s/ PAUL P. O'BRIEN,
Clerk of the United States Court of Appeals for
the Ninth Circuit.

In the United States Court of Appeals
for the Ninth Circuit
No. 12846

CHARLES D. BRONSON, JR.,

Plaintiff,

vs.

HUGH EARLE, Collector of Internal Revenue for
the District of Oregon and UNITED STATES
OF AMERICA,

Defendants.

DESIGNATION OF CONTENTS OF RECORD
AND POINTS ON APPEAL

To: Hugh Earle, The United States of America
and to Henry L. Hess, U. S. Attorney, and to
Victor Harr, their attorneys of record.

You and each of you will take notice that plaintiff designates for inclusion in the record on appeal of the above-entitled case to the United States Court of Appeals for the Ninth Circuit the following portions of the record, proceedings and evidence in such case in the District Court:

1. Pretrial order omitting the list of exhibits.
2. Finding of fact and conclusions of law.
3. Objection to findings and conclusions.
4. Order overruling objections and ordering the entry thereof.
5. Judgment.
6. This designation and points.
7. Transcript of testimony.

8. Exhibits Nos. 10, 11, 12, 13, 14 and 15.
9. Exhibits Nos. 16, 17, 18, 19, 20, 21 and 38.
10. Exhibit No. 22.
11. So much of Exhibit No. 23 as shows the parties to whom issued and the endorsement correcting insured; and first page of Exhibit No. 24 showing names of insured.
12. Exhibit No. 25.
13. Exhibit No. 26.
14. Exhibits No. 27 and No. 108.
15. Exhibits Nos. 29, 32 and 35.
16. Exhibits Nos. 39, 40 and 108.
17. Exhibits Nos. 41 and 42.
18. Exhibits Nos. 123, 124, 125, 126.
19. Exhibits Nos. 127 and 128.
20. Exhibit No. 129 without the exhibits therein identified.

Points on appeal on which plaintiff expects to rely:

1. That there was insufficient evidence to support the findings of fact entered by the court and each of them.
2. That the conclusions of law based on said findings of fact and conclusions of law are therefore erroneous.

3. That the conclusions of law are not in accordance with law and are against the weight of authority and the evidence.

4. That where two families not related are members of a partnership, there can be no reapportionment of income as between the family members for tax purposes.

5. That there can be no reapportionment of income within the family group where there was no income to apportion when the partnership was formed.

6. That said partnership could not have been formed for tax purposes solely when there was no income to be taxed.

7. That when a new business venture is formed, the judgment of the parties is conclusive as to the value of services to be rendered by the partners.

8. That if a partnership is valid for any purpose, it is valid for tax purposes save and except where its sole purpose is the avoidance of taxation.

9. That where a person has no right to control the management of a business or its policies and makes no contribution thereto in any form and received no benefits nor income therefrom, then the income from such business can not be taxable to him.

10. That a corporation can not be a lawful partner.

11. That a person can not assign something which he never had the right to control.

BOYD, FERRIS & ERWIN,
Attorneys for Plaintiff.

A true and correct copy:

/s/ WARD H. ERWIN,
Of Counsel for Plaintiff.

[Endorsed]: Filed February 14, 1951.

United States Court of Appeals
for the Ninth Circuit
No. 12846

CHARLES D. BRONSON, JR.,

Appellant,

vs.

HUGH EARLE, Collector of Internal Revenue for
the District of Oregon and UNITED STATES
OF AMERICA,

Appellees.

No. 12846

United States Circuit Court of Appeals

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CHARLES D. BRONSON, JR.,

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vs.

HUGH EARLE, Collector of Internal Revenue for
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Appeal from the United States District Court
for the District of Oregon

BRIEF OF APPELLANT

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Appeal from the United States District Court
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BRIEF OF APPELLANT

STATEMENT OF PLEADING AND FACTS UPON WHICH JURISDICTION IS BASED

Plaintiff commenced this action in the United States District Court for the District of Oregon against Hugh Earle, Collector of Internal Revenue for the District of Oregon, and The United States

of America for the recovery of Federal Income taxes alleged to have been erroneously and illegally assessed against and collected from plaintiff.

The Collector of Internal Revenue to whom \$19,415.25 of said taxes was paid was not in office at the commencement of the action (Tr. p. 4).

The Collector of Internal Revenue to whom \$6,281.89 of said taxes was paid was the duly acting, constituted and appointed Collector at the time this said action was commenced.

Jurisdiction of the United States District Court for the District of Oregon is grounded on congressional acts of June 25, 1948, Ch. 646 §1, 62 Stat. 933; April 25, 1949, Ch. 92 §2 (a), 63 Stat. 62; and May 24, 1949, Ch. 139 §80 (a), (b), 63 Stat. 101, Federal Code Title 28 Sections 1340 and 1346.

Jurisdiction of this court is grounded on Congressional Act of June 25, 1948, Ch. 646 §1, 62 Stat. 929, Federal Code Title 28, Section 1291 and Congressional Act of June 25, 1948, Ch. 646 §1, 62 Stat. 930, Federal Code Title 28, Section 1294.

Jurisdiction is stated in paragraph I of plaintiff's complaint (p. 1—Cert. Trans. of record), and

in paragraph I of defendants' answer, jurisdiction is admitted.

STATEMENT OF CASE

There are only two fundamental questions involved in this litigation:

1. Did the Commissioner of Internal Revenue err in determining that one-half of the income from a partnership known as Parkdale Lumber Company, Oreg. Ltd. should be taxed to plaintiff rather than one-fourth of said income, and

2. Did the Commissioner of Internal Revenue err in determining that all of the income from a co-partnership known as Ashbaugh Shingles and Shakes should be taxed to plaintiff rather than to plaintiff's wife (Tr. p. 6).

The disputed questions involve interpretation of the law relative to so-called family partnerships as applied to the peculiar facts of this case, and interpretation of the law relative to taxability of income as an assignment from an entity in which taxpayer did not own nor control any interest.

There are two separate and distinct partnerships in question.

PARKDALE LUMBER COMPANY was formed in 1944 as a limited partnership in which plaintiff and Janet Roles were limited partners and plaintiff's wife, Mildred P. Bronson, and R. C. Roles were the general partners, with the place of business at Parkdale, Oregon, to engage in the manufacture of lumber.

ASHBAUGH WOOD SHINGLES & SHAKES was formed in 1945 as a partnership with Morgan Stark, Lavinia Stark, B. C. Roos, Frank Belcher, Janet Roles and Mildred Bronson, as partners, with the principal place of business at Los Angeles, California, to engage in the sale of wood shingles and shakes.

Mr. and Mrs. Roles resided near Toledo, Oregon, Mr. and Mrs. Bronson, at Parkdale, Oregon, and Mr. and Mrs. Stark, Mr. Roos and Mr. Belcher resided at Los Angeles, California.

As to the certain income from Parkdale Lumber Company Oreg. Ltd. the commissioner allocated an additional one-fourth of the income from Parkdale Lumber Company to plaintiff and assessed and collected an additional tax based thereon and credited plaintiff with an offset to the extent of the

tax previously paid by plaintiff's wife on such income (the total income allocated to plaintiff after said addition being one-half of the total income of Parkdale Lumber Company). (Pretrial Order, Par. IX—Tr. p. 6.)

As to the certain income from Ashbaugh Wood Shingles and Shakes, the Commissioner assessed and collected from plaintiff a tax based on the assessment to him of the full amount of the income of that partnership on which Mildred P. Bronson had previously paid the tax and credited plaintiff with an offset to the extent of the taxes previously paid on this income by Mildred P. Bronson. (Pretrial Order, Par. IX—Tr. p. 6.)

The amounts involved are not in dispute and are admitted in the pretrial order (Tr. p. 3-6) wherein it is stipulated that on the trial of the case in the event of a judgment for plaintiff, the amounts will be fixed by agreement or by subsequent order of the court. (Pretrial Order, Par. XI—Tr. p. 6.)

CONTENTION OF APPELLANT

1. Plaintiff contends that the Commissioner erred in the determination relative to the alloca-

tion of the income previously reported by plaintiff's wife, and that plaintiff is entitled to a refund of the taxes paid as a result of said allocation to him, and that the court erred in entering findings of fact and conclusions of law to the contrary and in entering judgment thereon.

2. That there can be no arbitrary allocation of income between partners (two of whom were unrelated to the remaining two) in a new and untried business venture under the facts of this case.

3. That the income from a business in which plaintiff had no financial investment, nor right of control or management or no interest either in the investment or income can not be taxed to him for income tax purposes, but must be taxed according to the agreement of the partners, and that the court erred in entering findings of fact and conclusions of law in the contrary and in entering judgment thereon.

4. That there was insufficient evidence to support the findings of fact entered by the court and each of them.

5. That the conclusions of law are not in accordance with law and are against the weight of

authority and the evidence.

6. That there can be no reapportionment of income within the family group where there was no income to apportion when the partnership was formed.

7. That said partnership could not have been formed for tax purposes solely when there was no income to be taxed.

8. That where a new business venture is formed, the judgment of the parties is conclusive as to the value of services to be rendered by the partners.

9. That if a partnership is valid for any purpose, it is valid for tax purposes save and except where its sole purpose is the avoidance of taxation.

10. That a corporation can not be a lawful partner.

11. That a person can not assign something which he never had the right to control.

These questions are raised by the pretrial order "contentions of plaintiff" (Tr. p. 7) and objections to finding of fact and conclusions of law (Tr. p. 15-17) and by plaintiff's designation of points on file herein.

SPECIFICATIONS OF ERROR RELIED UPON

Appellant contends that the court erred:

I. In entering the conclusions of law as follows, over plaintiff's objections thereto and in entering judgment thereon as being contrary to law and to the evidence as applied thereto (Tr. pages 14 and 15).

a. Plaintiff has failed to sustain the burden of proof on the issue that he and his wife, Mildred P. Bronson, were bona fide partners in the Parkdale Lumber Company.

b. The Commissioner of Internal Revenue properly taxed to the plaintiff one-half of the income from Parkdale Lumber Company for the taxable years herein involved.

c. The amounts of money paid to Mildred P. Bronson during the taxable years herein involved by Ashbaugh Wood Shingles and Shakes represented income of the plaintiff assigned by plaintiff to his wife, Mildred P. Bronson. Such amounts were property taxed to plaintiff.

II. In entering findings of fact over plaintiff's objections thereto and in basing conclusions of law and judgment thereon as follows:

a. Appellant contends that findings of fact number 2 (Tr. p. 10) is erroneous in that the evidence discloses that a contribution to the capital of the Parkdale Lumber Company partnership was made by each of the partners thereto.

b. Appellant contends that the finding of fact numbered 3 (Tr. p. 10) is erroneous in that the evidence discloses that Mildred P. Bronson did contribute services to the partnership.

c. Appellant contends that the finding of fact numbered 4 (Tr. p. 10) is erroneous in that the same states a conclusion and is not factual upon which an objection could be predicated and is not supported by the evidence in that investment and management was not vested solely in plaintiff.

d. Appellant contends that the findings of fact numbered 5 (Tr. p. 11) is erroneous in that the evidence discloses that defendant did not receive or actually control and treat as his own all of the Parkdale income taxed to him, but on the contrary treated no more than one-half of said income as his own, and that the control of said money was divided between appellant and his wife, and further appellant received only one-fourth of the income from this source.

e. Appellant contends that findings of fact number 6 (Tr. p. 11) is erroneous in that the evidence discloses that there was in fact at the formation of Parkdale Lumber Co. partnership no family economic relationship as to income which would be the subject of change, and that appellant at the formation of the contract had not produced nor earned any income from the partnership business, and further that appellant had no right to control the use and disposition of any of the partnership earnings, except his own one-fourth interest.

f. Appellant contends that findings of facts numbered 7 (Tr. p. 1) is erroneous in that the finding that Mildred Bronson did not in any substantial manner influence the conduct of the business of Parkdale Lumber Company is without support in the evidence, and further contends that the finding that Mildred P. Bronson did not exercise any voice or control of the distribution of income from the business is erroneous in that there is no evidence to support said finding.

g. Appellant contends that finding of fact number 8 (Tr. p. 11) is so broad as to be a conclusion and not sufficient or definite to be subject to an objection on factual grounds disclosed by the evi-

dence, and is contrary to any evidence in that the control of the partnership was always vested in a majority thereof, and that the legal right to control of the business was vested in Mildred P. Bronson and R. C. Roles.

h. Appellant contends that the finding of fact numbered 9 (Tr. p. 11) is erroneous in that the same contains a series of facts and appears to be a conclusion based on said facts and is therefore not subject to an objection on factual grounds, but that the evidence does not disclose facts from which such a conclusion should be reached, and that the evidence discloses that the parties did intend to and did join together in the conduct of the partnership business.

i. Appellant contends that the finding of fact numbered 10 (Tr. p. 11) is erroneous in that the same is unsupported in the evidence in that no partner in the business was brought into the partnership, but rather the partnership was organized prior to the commencement of its operation and further that no partner could be brought into the business for the purpose of minimizing taxes based on income at the inception of said business, when

at such time there was no income to tax either to appellant or any other partner.

j. Appellant contends that finding of fact 12 (Tr. p. 13 and 14) is erroneous in that there is no evidence to support the various factual elements contained therein and that if the income was taxable to plaintiff and assigned to his wife, his wife would have been equally taxable if assigned for value, on said income; however, her taxes based on this income were refunded to her and the question of assignment is thereby waived; and further that since appellant had no right to control the partnership income and had no interest therein that he had nothing to assign, nor could appellant have been taxed on the basis of right of management of the business or its policy nor on invested capital; since he contributed no capital, control, interest nor management.

SUMMARY OF ARGUMENT

Plaintiff summarizes his argument as follows:

Re: Parkdale Lumber Company

1. This partnership was originated and composed of four members, two members of two families, to engage in a new and untried business ven-

ture. It was therefore not formed for the sole purpose of avoiding income taxes since there was no income to avoid at its formation, and is therefore a valid partnership for Federal Income Tax purposes, and the allocation of a one-fourth share of the income from this source was arbitrary and capricious and without foundation in fact.

2. The facts as supported by the evidence disclose a contribution of capital, services and stability by the wife of plaintiff to the partnership and the parties intended in good faith to enter into a partnership for a business purpose.

Re: Ashbaugh Wood Shingles & Shakes

1. Income from a partnership venture in which plaintiff had no right of control or management, no capital investment, and no actual interest as a member thereof can not be taxed to plaintiff as a beneficiary.

ARGUMENT

THE SPECIFICATIONS ARE CONSIDERED SEPARATELY AS FOLLOWS:

I

That the conclusions of law are erroneous as follows:

A. PLAINTIFF HAS SUSTAINED THE BURDEN OF PROOF ON THE ISSUE THAT HE AND HIS WIFE, MILDRED P. BRONSON WERE BONA FIDE PARTNERS IN THE PARKDALE LUMBER COMPANY.

It was said by our Supreme Court (Frankfurter specially concurring) in the leading case of *Culbertson vs. Commission*, 69 S. Ct. 1210, 337 U. S. 733:

“We should leave no doubt in the mind of the Tax Court, of Courts of Appeals, of the Treasury and of the bar that the essential holding of the *Tower* case is that there is ‘no reason’ why the ‘general rule’ by which the existence of a partnership is determined ‘should not apply in tax cases where the Government challenges the existence of a partnership for tax purposes’.”

Culbertson vs. Commission 69 S. Ct. 1210, 337 U. S. 733, at page 1220.

It would appear therefore that if the facts of the present case indicate the existence of a partnership under the general rules, that is sufficient to sustain any burden of proof cast on plaintiff.

In discussing this question, it must be noted that this was not a case of “bringing in” to an existing business a family member for the purpose of diluting or reducing the income to a single family member without changing the economic status of the

family group, but rather the parties to the partnership of Parkdale Lumber Company, Oreg. Ltd. entered into the partnership arrangement prior to the conduct of any business. There is no evidence to the contrary. The certified copies of the articles are on file (Exhibits No. 25 and 26 and 23. This is the uncontradicted testimony of the parties (Tr. Plaintiff Tr. p. 46-77).

The facts of this case are likewise distinguishable from the usual situation in that in this case the partners were not all members of the same family or family group.

It must therefore be assumed that if there is no evidence to the contrary, that the plaintiff has carried any burden of proof required to establish the existence of a bona fide partnership.

It should also be pointed out that once plaintiff has proved such an ordinarily valid partnership arrangement, he has sustained his burden and the burden of proving to the contrary or of going forward should rest with the Commissioner.

The definition of a partnership is set forth in Section 79-201, Oregon Compiled Laws Annotated as follows:

“A partnership is defined as an association of two or more persons to carry on as co-owners a business for profit.”

And this is a generally accepted definition.

Section 79-705, Oregon Compiled Laws Annotated states:

“Either a husband or wife may become and be either a general or limited partner with his or her spouse and other members either as general or limited partners. A limited partnership may carry on any business not prohibited by the laws of the State of Oregon.”

It must therefore be assumed that Parkdale Lumber Company was a valid limited Oregon Limited partnership, there being no evidence to the contrary and if there is no special concept of a partnership for tax purposes, then this partnership was valid for tax purposes as well as other purposes.

If the parties intended to join together for the carrying on of a common enterprise and sharing in the profits and losses, then this partnership is valid for all purposes.

The fact that they did so intend is found in the evidence by the testimony of the parties and by the documentary evidence.

Documentary evidence:

Articles of Limited Partnership (Exh. No. 25 and 26).

State Report—Unemployment Compensation (Exh. No. 27).

Copy of Social Security Tax Return (Exh. No. 28).

Copy of Insurance Policy and Endorsement (Exh. No. 23 and 24).

Original Timber Sale Agreements with U. S. Forest Service and bond (Exh. No. 41 and 42).

Company Books (Exh. No. 43).

Partnership Income Tax returns (Exh. No. 104 and 107).

The testimony of the parties:

Charles D. Bronson, Tr. p. 45 and 46.

A. "There was just the four of us in the whole thing."

Q. "Can you state whether or not there were any discussions as to your conversations with Mr. Martin, between the other partners?"

A. "Oh, yes. There were discussions as to whether we could form this limited partnership or a corporation, just how to start."

Carey Martin Tr. p. 71.

A. ". . . It wasn't even discussed; but they had

the corporation which had two activities, of which Mr. and Mrs. Roles had been active in one of them and managed it and been there, and Mr. and Mrs. Bronson on the other. Now they had both contracted to buy another different operation (Parkdale Lumber Co.) . . .”

Richard Roles Tr. p. 123.

A. “The agreement was that we would all go in as partners and divide this Parkdale up equally between all.”

There is no direct evidence to the contrary.

Therefore to hold to the contrary would be to substitute the judgment of the Commissioner for that of the parties.

This means that the Commissioner must have determined that Mr. and Mrs. Roles and Mr. Bronson did not intend to have Mrs. Bronson as a partner.

In other words, the Commissioner’s judgment is being substituted for that of the people outside of the Bronson family.

It is sufficient for tax and other purposes if the judgment of the parties is that a partner add to the partnership in any manner whatsoever.

This reasoning was supported by one court in the following language.

“We can not subscribe to a doctrine which would say a person is not needed in a partnership. The people in the partnership may be the sole judge of what they need and outsiders may not say what is needed . . .

“We all know there are such partners as must be respected as silent partners not known to anybody. There are limited partners.

“Persons in partnership have a right to choose their business associates and if such person so chosen contributes to that partnership either in stability, money, capital, services, advice or what not, so that it is a real and actual benefit or contribution, then it comes within the dominating dimension of the Internal Revenue Act which relates to this matter as Congress intended that it should.” *J. L. Hair et ux. v. Arnold*; *C. B. Christie et ux. v. Arnold*; *Grover Ballington et ux v. Arnold*, 501 U.S.T.C. Par. 9255.

“If upon a consideration of all the facts, it is found that the *partners* joined together in good faith to conduct a business, (the partners) *having agreed that the services or capital to be contributed presently by each is of such value to the partnership that the contributor should participate in the distribution of profits, that is sufficient. The Tower case DID NOT PURPORT TO SUBSTITUTE ITS JUDGMENT FOR THAT OF THE PARTIES*, it simply furnished some guides to the determination of their true intent.” *Culbertson vs. Commissioner* (Supra, on page 1215) (Parenthesis and italics ours).

The partners of Parkdale Lumber Company, Oreg. Ltd. became acquainted in 1935 when they organized Warrenton Shingle Company, a corporation. All parties lived near the site of that company's mill and "lived with" its operation. The two families later separated to operate another shingle mill.

The original mill was destroyed by fire and the parties then discussed the purchase of another shingle mill or other investment and after considerable time and discussion, they then decided to purchase a lumber mill at Parkdale, Oregon.

The original payment came from individual funds of the parties and the agreement was signed in the name of the corporation until such time as the formal organization of the Parkdale Lumber Co., partnership was completed. All opening entries were made in the name of the partnership before operation was commenced. The original down payment was \$10,000.00 and the partnership articles disclose capital contributions of \$2,500.00 (one fourth of the original contribution which was to be equal).

The Court said in:

Lawton et al vs. Commission: 164 F. 2d 380,
385 quoted in Cooke vs. Glen (78 F. Supp.

519 (a), 528 Affirmed. Glen vs. Cooke (177 F. 2d 201).

“It would be strange also if in such a coordinated family activity, policies involving management sales and expansion were not discussed and decisions made at the family fireside.”

B. THE COMMISSIONER OF INTERNAL REVENUE ERRED IN TAXING TO PLAINTIFF ONE-HALF OF THE INCOME FROM THE PARKDALE LUMBER COMPANY FOR THE TAXABLE YEARS HEREIN INVOLVED.

Since the partners of Parkdale Lumber Company intended to become partners in Parkdale Lumber Company, Oreg. Ltd. and did enter into an agreement therefor, the taxation of more than one-fourth of the Parkdale income to plaintiff was erroneous.

In the Culbertson case (Frankfurter specially concurring) (Supra), at page 1220, it was said:

“In plain English if an arrangement among men is not an arrangement which puts them in the same business boat, then they can not get into the same boat merely to seek the benefits of Section 181 and 182. But if they are in the same business boat, although they may have varying rewards and varied respective

responsibilities, they do not cease to be in it when the tax collector appears.”

C. THE COMMISSIONER ERRED IN TAXING TO PLAINTIFF THE AMOUNTS OF MONEY PAID TO MILDRED P. BRONSON DURING THE TAXABLE YEARS HERE INVOLVED (1945 and 1946 only) BY THE ASHBAUGH WOOD SHINGLES AND SHAKES BECAUSE IT DID NOT REPRESENT INCOME OF PLAINTIFF ASSIGNED BY HIM TO HIS WIFE.

Plaintiff contends that the court's conclusion is clearly erroneous and contrary to the evidence and the law, as plaintiff did not at any time have any interest in or control over the management or income from the venture known as Ashbaugh Wood Shingles and Shakes.

The Commissioner contends, and the Court finds that this income is the income of the plaintiff.

Yet the plaintiff had never at any time had any interest financially in this partnership. It was created as the idea of one Morgan Stark and his attorney, Mr. Frank Belcher, an attorney of Los Angeles, California; it was an agreement between these parties in California and the wife of plaintiff and the wife of his business associate, Mr. Roles.

This was also an entirely new business venture, without knowledge of the future profits, if any, it would produce, and without management or right of management by plaintiff.

The profits which were distributed were profits from the sale of shingles in the Los Angeles area and these profits were not due in any respect to the efforts of Mr. Bronson. There is no evidence to the contrary.

Warrenton Shingle Company had been selling shingles to Ashbaugh Wood Shingles and Shakes while owned by Mr. Ashbaugh. When Mr. Ashbaugh sold his business to Beverly Roofing Company who assumed the same name, "Ashbaugh Wood Shingles and Shakes," the Warrenton Shingle Company continued to sell shingles to that company as before until it failed to pay for a shipment of shingles; therefor it refused to ship more until payment had been made.

It has been repeatedly held that where a business is entirely separate and distinct from a controlled corporation, the income of a partnership (family) is not taxable to the corporation, and in fact, in the case of *John L. Denning & Co. Inc. vs. Commissioner* 180 F. 2d 288) the husband was the

controlling stockholder of a corporation, but was not a member of a family partnership composed of wife, daughter and son who purchased broom corn and supplies from the same sources as the corporation and sold to the same customers. The wife and son contributed their own capital and the husband and wife loaned money to the daughter to invest in the business.

The Court of Appeals for the 10th Circuit held the corporation was not taxable on the income of the family partnership.

To the same effect, see *Twin Oaks Co. vs. Commissioner* (183 F. 2d 385, Ninth Circuit) where this court held that the Tax Court was in error in holding that the partial dissolution of a corporation with transfer of its assets to a family partnership was a sham to reallocate income (equivalent to assignment) and was therefore taxable on the partnership income.

Even if the capital of the Ashbaugh partnership had been contributed by plaintiff and he had relinquished control of his capital and income, the income could not be taxed to him. *Bein* 14 TC 1144, *Vance* 14 TC 1168.

To so hold would be to hold that a husband may be taxed on the income from a partnership in which his wife is a member merely by virtue of the family relationship.

The husband here had no right to control, made no investment, no contributions of services, was never a formal member, never intended to be a member formally or otherwise, shared none of the partnership income, nor any of its liability.

The plaintiff having nothing of value to assign, he can not be taxed as an assignor of income which may or may not be produced from a partnership of which he was not a member.

There is no basis in law or fact for the conclusion reached by the Trial Court or by the Commissioner.

If a partnership is recognized as valid, then the Commissioner has no authority to reallocate the income other than as agreed by the parties. *Sol M. Fleck*, 8 TC 945.

The validity of the Ashbaugh Wood Shingles and Shakes partnership is conceded by the Government in the deposition of Morgan Stark (Ex. No. 129, p. 36) when Mr. Winter states:

“We are not questioning the legality of your arrangements with the wives of Mr. Roles and Mr. Bronson. You have a perfect right to enter into an agreement with them.”

II.

The findings of fact, and any conclusions or judgments based thereon are erroneous in that:

A. PLAINTIFF'S WIFE, MILDRED P. BRONSON, CONTRIBUTED CAPITAL DIRECTLY TO THE PARKDALE LUMBER COMPANY, (Finding No. 2, Tr. p. 10).

The evidence discloses that a contribution of capital to the Parkdale Lumber Company partnership was made by each of the partners thereto contrary to the finding.

The uncontradicted evidence discloses that Parkdale Lumber Company was purchased by the payment to the sellers of \$10,000.00 as earnest money.

This money was paid by the check of Warrenton Shingle Company (whose stockholders were plaintiff and R. C. Roles) from funds of that company on hand at the time its original mill was completely destroyed by fire and in whose operation the stockholders and their wives had taken a very

active part. The certificate of limited partnership recites that the two limited partners, Mrs. Roles and plaintiff, had contributed \$2,500.00 each.

Since we know that Mrs. Roles was not a stockholder in Warrenton Shingle Company and had no legal right to any part of the fund used for the down payment, it must appear that a gift of this capital was made to Mrs. Roles by Warrenton Shingle Company, and likewise, since the testimony disclosed that contributions were to be equal (Charles D. Bronson, Tr. p. 78), Mrs. Bronson's came from the same source.

Thus the original capital, while coming nominally from the Warrenton corporation, was \$10,000.00 divided four ways or \$2,500.00 by each partner.

The balance of the purchase price was paid from the profits of the business except for an additional \$10,000.00 paid from the account of Mr. Bronson and Mr. Roles. These funds were treated as a loan.

“Court: Did the Parkdale Lumber Company ever pay back in money to the Warrenton Shingle Company?

“A. Yes, the Parkdale Lumber Company paid it back once, but we got a little on the bad

side at Parkdale and then took it back again.” (Tr. p. 111).

The case of *Apt vs. Birmingham*, 89 Fed. Sup. 361, contains an excellent summary of the various holdings concerning “gift capital.”

It has been repeatedly held that the amount contributed as capital, and income therefrom, may be considered the property of the donee for tax as well as general purposes.

Culbertson vs. Commissioner 69 S. Ct. 1270, 337 U. S. 733.

Apt vs. Birmingham 89 F. Sup. 361.

Kent vs. Commissioner 170 Fed. 131.

Huff vs. Glen 85 F. Sup. 386.

Graber vs. Commissioner 171 F. 2d 32.

Willard vs. U. S. 89 F. Sup. 972.

In *Apt vs. Birmingham*, quoting *Richardson vs. Smith*, 102 F. 2d 697, 125 ALR 774, it was said:

“The donor’s mere belief, however well founded, that donee will permit him to control the subject matter of the gift and his purpose to do so are not sufficient in themselves to render the gift invalid or sham.”

In the present case the capital investment made was not under control of the donor but under the control of the remaining three partners and in addition was subject to the rights of creditors as to Mrs. Bronson’s share along with any other capital

contributions from loans or otherwise since she was a general partner in the business.

That there was a gift intended is further shown by the letters from Mr. Martin referring to gifts. (Tr. p. 55 and 56.)

The Supreme Court held in the case of Culbertson vs. Commissioner, *supra*, page 1216, "that facts may indicate on the contrary that the amount contributed and the income therefrom should be considered the property of the donee for tax as well as general law purposes."

In *Cooke vs. Glen* (78 F. Sup. 519, 530) it was said, "Although the capital contribution of Elva Cooke to Broadway Chevrolet originated with her husband V. V. Cooke, the amount borrowed was contributed to a *new venture* in the same proportion as V. V. Cooke, Almond Cooke and Jenny Cooke, the other partners, and in that proportion Elva Cooke is liable for Federal Income Taxes attributable to her one-fourth interest. (Emphasis ours.)

B. PLAINTIFF'S WIFE MADE A CONTRIBUTION OF SERVICES TO PARKDALE LUMBER COMPANY:

The evidence discloses that Mildred P. Bronson

did contribute services to the Parkdale Lumber Company, Oreg. Ltd. partnership, contrary to the finding.

“Services” by a partner are anything of value IN THE JUDGMENT OF THE PARTIES. (Culbertson vs. Commissioner, *supra*, at page 1215.)

In this case, Mrs. Bronson lived and maintained the residence which was also used as an office on the mill-site, she handled the telephone matters and was in charge while plaintiff was away. She secured employees for the mill and generally did each and everything necessary to help it along whenever called upon.

In addition she entered into the business discussions at the house and entertained the mill customers, and foremost, she was at the mill site and familiar with the employees in the event of injury or casualty to Mr. Bronson, which was of real and substantial interest to Mr. and Mrs. Roles.

Perhaps the most significant contribution to the partnership at its inception (which is the time when the taxable interests of the partners are determined for tax purposes) is that she provided the necessary stability to the partnership. Where Mr.

Bronson's liability as a limited partner was limited to \$2,500.00, she had unlimited liability as a general partner. (See *Twin Oaks Co. vs. Commissioner*, *supra*.)

She signed the timber purchase contracts with the United States Government long before this partnership was questioned and thereafter became liable on a bond for performance of such a contract.

It has previously been pointed out that "it would be strange also if in so coordinated a family activity, policies involving management, sales and expansion were not discussed and decisions made at the family fireside." (*Cooke vs. Glen*, *supra* quoting *Lawton vs. Commissioner*.)

That this had been a policy among these partners is shown by the fact that although Warrenton Shingle Company was legally a corporation for liability reasons, its growth and development were the combined work, effort and discussion of each of the Parkdale partners who had long treated Warrenton Shingle as a partnership among themselves.

C. PLAINTIFF THROUGH HIS CONTRIBUTION OF CAPITAL AND THROUGH HIS MAN-

AGEMENT OF THE PARKDALE LUMBER COMPANY WAS ENTITLED ONLY TO ONE-FOURTH OF THE INCOME OF THE PARKDALE LUMBER COMPANY.

Plaintiff through his contribution of capital and through his management of Parkdale Lumber Company ACTUALLY created the right to receive and enjoy only one-half of the income therefrom taxed to plaintiff, amounting to one-fourth of the income of Parkdale Lumber Company, Oreg. Ltd., contrary to the finding.

The finding of fact as written is a conclusion and is unsupported by the evidence.

It has been repeatedly held that the RIGHT TO RECEIVE and control the income from the partnership and not the actual control is the determining factor. (Funai vs. Commissioner 181 F. 2d 896.)

There is no evidence in the present case to show that the right to control the disputed one-fourth share of the income was in plaintiff and not in Mildred P. Bronson.

The uncontradicted testimony of the parties that Mildred Bronson had the right to control one-fourth of the income is supported by the fact that

Mildred P. Bronson did actually receive and deposit one-fourth of the partnership distribution and did pay a tax based thereon before this matter was ever questioned by the Commissioner.

Helvering vs. Hoist 61 St. Ct. 144.

Apt vs. Birmingham 89 Fed. Sup. 361.

Funai vs. Commissioner (18 1F 2d 890).

In the Funai case it was said at page 894:

“There is no rule of law that requires the recipient of money to spend it before it can be classified as income. The *right to control* funds and not the exercise of that right is the valid factor.” (Italics ours.)

In the present case, plaintiff had effectively disposed of his interest in any capital contribution of the parties and hence his right to control the same. Legally, morally, and intentionally, he acquired only a one-fourth interest in the concern.

If the parties join together in the conduct of business and agree that the services or capital to be contributed by each are of value to the partnership, that is sufficient. The government will not be permitted to submit its judgment for that of the parties. Culbertson vs. Comm. Supra, page 1215.

In the present case, the judgment of Richard and Janet Roles and plaintiff was that the services

of Mildred P. Bronson were of value to the partnership, and they willingly accepted her as a member of the partnership.

Services need not be clerical, manual or physical, but may be in the nature of business discussions of policy around the family fireside or at any other place. *Cooke vs. Glen, Supra.*

Persons in partnership have a right to choose their business associates and if such person contributes in stability or any other manner in the judgment of the partners, that should be sufficient. *Culbertson vs. Commissioner, (Supra); Hair, Chester, Ballington vs. Arnold, (501 USTC par. 9255).*

Here there is no evidence that would allow the Commissioner to substitute his judgment for that of the other three partners in this respect.

D. PLAINTIFF ACTUALLY RECEIVED OR ACTUALLY CONTROLLED AND TREATED AS HIS OWN ONLY ONE-FOURTH OF THE INCOME OF THE PARKDALE LUMBER COMPANY TAXED, FOR FEDERAL INCOME TAX PURPOSES TO HIM.

Plaintiff did not actually receive or control and

treat as his own all of the one-half of the income of Parkdale Lumber Company, Oreg. Ltd. taxed for federal income tax purposes to him, contrary to the finding.

The evidence discloses that the distributions of income from Parkdale Lumber was distributed by individual checks to each of the members of the partnership in like amounts and that the checks when so deposited were placed in the only personal account maintained by plaintiff and his wife which was jointly controlled.

Drawings from this account were made by both plaintiff and defendant, and it should be pointed out that there is no showing that plaintiff ever withdrew from that account more than his share of the deposits made by him thereto, on which he had reported and paid income taxes.

We have previously discussed in the last preceding specification the question of ownership from right to control.

E. THE PARTNERSHIP ARRANGEMENT KNOWN AS THE PARKDALE LUMBER COMPANY MADE A SUBSTANTIAL CHANGE IN THE ECONOMIC RELATIONSHIP OF PLAINTIFF AND

HIS WIFE: HE DID NOT CONTINUE TO EARN AND PRODUCE THE INCOME TAXED TO HIM AND DID NOT CONTROL ITS USE AND DISPOSITION.

The evidence discloses that the economic relationship of plaintiff and his wife was changed as a result of the formation of Parkdale Lumber Co. and that plaintiff did not continue to earn and produce the income taxed to him and control its use and disposition, contrary to the finding.

The fallacy in proposed finding No. 6 is that at the inception or formation of Parkdale Lumber Company, Oreg. Ltd. there was no economic relationship to income which could be the subject of change, since at that time there was no income.

At the inception, the economic relationship of plaintiff and his wife was changed, however, by the exposure of their assets to the hazards of the Parkdale Lumber Company operations or liabilities which at that time consisted of the balance due on the purchase price of the mill and whatever additional indebtedness might be created by the action of the other partners in connection with the operation. *Twin Oaks Co. vs. Commissioner* (183 Fed. 385, 387).

It should be apparent that this finding has no relation to the question presented since at the formation there was no income which could be the subject of economic changes.

It should be pointed out that in every case where a member of a family is a partner in a business that there is no change in the economic relationship of the family as to income even if the wife is the controlling and dominant influence in the partnership and had invested all of the capital.

Plaintiff could not *continue* to produce income of the Parkdale business since neither he nor any other member of the partnership had produced any income when the partnership was formed.

This finding seems to indicate the misconception of the court concerning the fundamental question of intent to form a partnership.

This finding was undoubtedly taken from the case of Commissioner vs. Tower, 148 F. 2d 388, where a husband gave his wife an interest in an existing business and where wife did not share in the distribution, it was held that there was no change in the economic relationship of the family to income by virtue of the transfer. That was the

typical tax avoidance family partnership arrangement where the husband CONTINUED as he had done before to earn the income and to control distribution of its profits. This has no relationship to the present case factually or legally.

The Supreme Court in discussion of the Tower case in the later case of Culbertson vs. Commission, Supra, stated at page 1215:

“Unquestionably a court’s determination that the services contributed by a partner are not vital, and that he has not participated in management and control of the business or contributed original capital has the effect of placing a heavy burden on taxpayer to show a bona fide intent of the parties to join together as partners. BUT SUCH A DETERMINATION IS NOT CONCLUSIVE AND THAT IS THE VICE IN THE “TESTS” ADOPTED BY THE TAX COURT. IT ASSUMES THERE IS NO HONEST DIFFERENCE OF OPINION AS TO WHETHER THE SERVICES OR CAPITAL ARE OF SUFFICIENT IMPORTANCE TO JUSTIFY HIS INCLUSION IN THE PARTNERSHIP.” (Emphasis ours.)

This assessment was made long before the decision in the case of Culbertson vs. Commissioner but after the Tower case.

In the present case, we are determining the question from the standpoint of four people not

members of the same family but of two families.

F. MILDRED P. BRONSON DID INFLUENCE THE CONDUCT OF THE BUSINESS OF THE PARKDALE LUMBER COMPANY AND EXERCISED VOICE AND CONTROL OF THE DISTRIBUTION OF THE INCOME OF THE BUSINESS.

The evidence discloses that Mildred Bronson did influence the conduct of the business of Parkdale Lumber Company, Oreg. Ltd., and did exercise voice and control of the distribution of the income of the business, contrary to the finding.

The only evidence in the case indicates that Mildred P. Bronson took an active part in the general discussions of the business problems, lived at the site of the operation, her home was used for its office, signed documents relating to its purchase of timber from the Forest Service and willingly agreed to be a general partner in the business. She was called upon to hire employees and to know the personnel of the mill. She had been continuously consulted concerning the desirability of purchasing the mill and other investments and had discussed over the previous years each of the opera-

tions of the previous business. She did not live in the penthouse in the city but in the woods at the mill site where the business discussions took place.

There is no evidence that she did not so participate and no evidence to support the conclusions that she failed to influence the conduct of that business, and no evidence that she failed to exercise any voice or control over the distribution of the income. The facts prove she did along with the other partners receive the income at irregular distribution dates.

G. PLAINTIFF AND R. C. ROLES DID NOT ACTUALLY CONTROL AND DOMINATE THE BUSINESS OF THE PARKDALE LUMBER COMPANY.

No evidence supports the conclusion contained in the findings of fact to the contrary.

Mr. Bronson took an active part in the management of Parkdale Lumber Company, as did Mr. Roles, but all of the evidence is to the effect that all four partners met frequently, personally and by telephone, to discuss business affairs.

There is no evidence from which it can be said that "we apportion the control and domination to Mr. Roles and plaintiff."

We assume, but not without some doubt that the male is or believes he is somewhat more dominant than the female, but we find no proof of this in the evidence of this case nor elsewhere, nor is this fact controlling. (Apt. vs. Birmingham, *supra* page 381.)

The fallacy in this finding is apparent when we consider that a partnership in the conduct of its business might be in truth, and indeed often is, dominated by a hired employee. The fact, if true, has no relation to the problem at hand in any event.

Here again we are concerned not with domination but with the right to dominate, or control, whether exercised or not.

The parties here intended the consequence of their act and that was to conduct mutually a business for profit.

The RIGHT to control this partnership was vested in Mildred Bronson and R. C. Roles and not in the limited partners.

H. FROM A CONSIDERATION OF ALL THE PLEADINGS THE PRE-TRIAL ORDER AND ALL OF THE EVIDENCE IN THE CASE ORAL

AND DOCUMENTARY, INCLUDING THE PARTNERSHIP AGREEMENT, THE CONDUCT OF THE PARTIES IN THE EXECUTION OF ITS PROVISION, THEIR STATEMENTS, THE TESTIMONY OF ALL THE WITNESSES, THE RELATIONSHIP OF THE PARTIES, THEIR RESPECTIVE ABILITIES AND CAPITAL CONTRIBUTIONS, THE ACTUAL CONTROL OF THE INCOME AND THE PURPOSES FOR WHICH IT WAS USED AND ALL OTHER FACTS AND CIRCUMSTANCES THROWING LIGHT OR TENDING TO SHOW THE TRUE INTENT OF THE PARTIES TO THE AGREEMENT THAT PLAINTIFF AND HIS WIFE DID INTEND IN GOOD FAITH AND WITH A BUSINESS PURPOSE TO JOIN TOGETHER AS PARTNERS IN THE CONDUCT OF THE BUSINESS OF THE PARKDALE LUMBER COMPANY.

The evidence indicates that the parties themselves did intend to and did in fact enter into a bona fide partnership for a business purpose in the conduct of the business known as Parkdale Lumber Company, Oreg. Ltd., contrary to the finding.

To conclude that the parties (the finding only refers to two of the partners) did not intend to

form a partnership from the facts proven by the evidence would be to totally disregard the testimony of the parties comprising the partnership and the testimony of the only disinterested witness, and all of the documentary evidence. There were no witnesses for the Government.

The testimony of the parties was that they did intend to form a bona fide partnership. It seems so irrefutable as to be a matter of law "that a person intended the natural consequences of his voluntary acts." This is made a presumption under the laws of the State of Oregon and is set forth as quoted above in Oregon Compiled Laws Annotated, Section 2-407 (2). Their being no evidence to the contrary the presumption stands.

All of the parties being of legal age and competency executed documents by which the partnership was formed and caused those articles to be publicly recorded pursuant to law. Their insurance policy was so worded and published; their contracts with the Government bound them in that capacity.

It is difficult to see how the Commissioner under such circumstances can arbitrarily state "you did not intend the natural consequence of your act;

you did not intend to form a partnership.”

This matter was not a spur-of-the-moment transaction. The partners had taken several months to look for a new investment after the disastrous fire of the late fall. They were certainly not concerned with a transfer of interests in an existing business for the purpose of avoidance of taxes at that point when they had not even found an investment.

Even prior to consultation with Mr. Martin whom they consulted primarily in connection with Workmen's Compensation Insurance, they decided on the formation of the partnership arrangement.

Let us assume that at this point (although it is contended to the contrary) that the sole purpose of choosing this form of business entity was for the express and only purpose of reducing or minimizing income taxes if the business were successful.

All decisions respecting this question recognize that this purpose is not only a legitimate but a proper motive for selecting a particular type of business entity, either at the formation or even while in operation.

(Commissioner vs. Tower, *Supra*; Vaughn vs. Carey, 88 F. Sup. 967.)

We can therefore eliminate the tax saving motive either on the ground that it is proper or on the ground that at the formation of a new business where there is then no income, there can be no motive to save taxes. Certainly it would not reduce Mr. and Mrs. Roles' profit to have Mrs. Bronson as a partner irrespective of taxes.

If the sole motive therefore is not to minimize taxes or if the tax saving motive is proper, then on what other ground can the Commissioner determine that there is no intent to form a partnership. The answer to this question is that the Commissioner has no other ground for making the challenge, and if the partnership is valid, it is valid for tax purposes.

The partners certainly intended to form a partnership and entered into that arrangement.

The closest reported case factually to the one at present where the question was raised is *Cooke vs. Glen*, *Supra*, which held in favor of the taxpayer.

I. PLAINTIFF'S WIFE WAS INCLUDED IN THE BUSINESS CONDUCTED AS THE PARK-DALE LUMBER COMPANY AS A PARTNER FOR

A GENUINE BUSINESS PURPOSE. SHE WAS NOT BROUGHT INTO THE BUSINESS.

The finding again appears to disclose the misconception of the court concerning the fundamental question of intent to form a partnership.

The evidence shows that no partners were "brought into" an existing business but this was a new business venture in which all of the parties were interested prior to starting its operation.

Finding numbered 10 assumes a bringing in "of a partner to an existing business." Such an assumption is completely unsupported by the evidence. There is no evidence that Parkdale Lumber Company operated even a short period of time before plaintiff's wife was included as a member of the partnership. Plaintiff's wife was a member of the partnership from its formation and prior to its operation.

Mrs. Bronson was made an original partner to provide stability through general liability and to protect the interest of the other partners in the event of a casualty to her husband in a hazardous occupation, and to be familiar with the operation and advise and consult in its conduct and opera-

tion. She was not "brought in" for minimizing plaintiff's income taxes, since there had been no income from this source at the time the partnership was formed, nor was she ever "brought in." She was an original partner.

It should be remembered that if Mrs. Bronson was "brought into the partnership," it would be by others than a member of her family. For a partner can not be made a partner against the will of the others.

J. ASHBAUGH WOOD SHINGLES AND SHAKES WAS NOT ORGANIZED TO PERMIT PLAINTIFF AND R. C. ROLES TO AVOID O. P. A. REGULATIONS. THEIR WIVES WERE MADE ACTUAL PARTNERS IN THE ENTERPRISE, AND PLAINTIFF'S WIFE HAD DOMINATION AND CONTROL OVER THE INCOME ALLOCATED TO HER.

The evidence shows that the plaintiff had no interest in the Partnership known as Ashbaugh Wood Shingles and Shakes, exercised no control thereover, had no right to control the business activities of that concern and could not be taxed on the income from that source.

As has been previously pointed out, when a person, even where he had a previous interest in a business, divests himself of that interest, so that he no longer has the right to control the activity thereof, nor the investment therein, then the earnings or income therefrom are no longer taxable to him.

Since he has nothing to assign, he can not be taxed as a sham assignor.

Here again there could be no purpose of income tax minimization at the inception of the contract since at that time, there was no income to minimize from this source.

The Government received the taxes on the income derived from this source when Mrs. Bronson properly reported them and paid a tax thereon.

The Government's contention appears to be that this was actually the income of the corporation producing the shingles sold by the partnership.

The case of *Twin Oaks Co. vs. Commissioner*, *Supra*, decided by this court holds directly contrary to this contention on far weaker facts than presented here.

The case of *Fahnrich vs. Paulsen* (134 Ore. 247, 293 Pac. 422) holds that a corporation may not become a partner.

Here the Warrenton Shingle Company had refused to ship shingles to Mr. Stark because their output was previously sold, but they were willing to and did ship shingles to Ashbaugh who was a long-standing customer of theirs. When Ashbaugh sold his business, the corporation continued to ship shingles as before. The corporation did not change its position in any way. The idea of Mr. Stark to assure his supply by voluntarily including Mrs. Bronson and Mrs. Roles in this partnership did not change the position of Warrenton Shingle Company in any way.

It was of obvious advantage to Mr. Stark to have Mrs. Bronson and Mrs. Roles as partial beneficiaries of the income from his business, and from his deposition, exhibit 129, it appears that he considered that the supply of shingles would at least be continued to him on the same basis as prior if he purchased the Ashbaugh business.

There were no promises made to him concerning this supply, and in fact, his supply was termi-

nated when he failed to pay a \$3000.00 account to the Warrenton Corporation.

Mr. Bronson certainly contributed nothing to this concern toward the production of the income, and was certainly not a partner therein formally or informally.

For taxation purposes, there is no theory on which it could be said he did dominate and control the income allocated to Mrs. Bronson.

She received all of the checks and there is no showing that she did not exercise every right of ownership and control incident thereto.

There is no showing that plaintiff ever exercised any control or domination over any income from this source.

We again call attention to the holdings that when a person or a corporation effectively divests itself of control or ownership in a business, the divestor is not thereafter taxable on the income therefrom.

So that even were we to assume that this was the income of the corporation as contended by defendant, having divested itself of any interest or control thereof, the corporation or its stockholders

would not be taxable on the income therefrom. (Twin Oaks vs. Commissioner, Supra; John L. Denning Co. Inc. vs. Commissioner, Supra.)

CONCLUSION

I.

Plaintiff contends that the evidence establishes the following essential facts as to Parkdale Lumber Company.

1. A new and untried business venture.
2. A legal limited partnership.
3. Contribution of capital by all partners.
4. Contribution of services by all partners.
5. Bona fide intent to form a partnership by all partners.

If these are proven, then there can be no other judgment than in plaintiff's favor.

There appears to be no dispute as to the first two of the above facts.

As to "contribution of capital" the court's error appears to be predicated in its failure to consider the fact that capital may be acquired by gift or loan. The court held that Mrs. Bronson contributed no capital. Yet the evidence supports only one con-

clusion — that she did contribute \$2500.00.

As to contribution of services, the court's error appears to be predicated on its failure to properly evaluate "services."

Services need not be manual, clerical or physical but may consist of advice, stability, consultation or any other things which is IN THE JUDGMENT OF THE PARTNERS, of value.

There can be no other conclusion drawn from the evidence than that services were contributed by all of the partners.

As to intent to form a partnership, there is no evidence from which it can be said that the parties did not intend to form the partnership. Every act and every exhibit shows to the contrary.

The allocation was arbitrary and capricious and plaintiff is entitled to a refund of the taxes paid as a result of the allocation of an additional one-fourth of the Parkdale Lumber Company, Oreg. Ltd. income to him for the years in question.

II.

Plaintiff contends that the evidence establishes the following essential facts as to Ashbaugh Wood

Shingles and Shakes.

1. That plaintiff made no capital investment in that concern.
2. That plaintiff contributed no services to that concern.
3. That plaintiff had no right of management or control of the policies of that concern.
4. That plaintiff had no right to control the income from that concern.
5. That plaintiff had no legal, or equitable or moral interest in that concern.

These facts all appear not to be in dispute.

The court's error appears to be in a failure to understand or apply the law relative to the taxability of income from a source in which the taxpayer in no way participates.

The Government's contention as to Ashbaugh is the direct opposite of their contention as to Parkdale.

We are here interested only in the question of taxability of income.

There is no basis for taxing income to the plaintiff from this source.

The allocation was arbitrary and capricious and plaintiff is entitled to a refund of taxes paid as a result of the wrongful allocation of the income from Ashbaugh Wood Shingles and Shakes previously reported by Mildred Bronson.

Respectfully submitted,

WARDE H. ERWIN

BOYD, FERRIS & ERWIN

DAVID PATTULLO

United States
COURT OF APPEALS
for the Ninth Circuit

CHARLES D. BRONSON, JR.,

Appellant,

v.

HUGH EARLE, Collector of Internal Revenue
for the District of Oregon and United States
of America,

Appellees.

On Appeal from the United States District Court for the
District of Oregon.

BRIEF FOR THE APPELLEES

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BRIEF FOR THE APPELLEES

OPINION BELOW

The pretrial order of July 11, 1950 (R. 3-9), the oral opinion of the District Court of August 4, 1950 (R. 21), and the findings of fact and conclusions of law of November 17, 1950 (R. 10-17), are not reported.

JURISDICTION

This appeal involves a deficiency in federal income taxes of Charles D. Bronson, Jr., hereinafter referred to as taxpayer, for 1944, 1945, and 1946 in the respective amounts of \$9,678.23, \$10,488.93 and \$23,339.51 plus interest. (R. 5.) The deficiencies resulted from the Commissioner's determination that amounts received from two alleged partnerships reported in the income tax returns of taxpayer's wife should be taxed to him. The deficiency was satisfied in part by applying credits resulting from an overassessment of income of taxpayer's wife (R. 5-6) and in part by payments to the Collector and to the former Collector of Internal Revenue for the District of Oregon. (R. 3-4.) Taxpayer filed a claim for refund on May 10, 1949, which was disallowed by the Commissioner of Internal Revenue on December 19, 1949. (R. 6.) Within the time provided in Section 3772 of the Internal Revenue Code and on March 6, 1950, taxpayer filed a complaint in the District Court for the District of Oregon for the recovery of the taxes paid. (R. 20.) Jurisdiction was conferred on the District Court by 28 U. S. C., Sections 1340 and 1346 (a)(1). Judgment was entered in favor of the United States and of the Collector on November 17, 1950. (R. 18-19.) Within sixty days and on January 12, 1951, notice of appeal was filed. (R. 19.) Jurisdiction is conferred on this Court by 28 U. S. C., Section 1291.

QUESTIONS PRESENTED

1. Where taxpayer's wife contributed no services, capital or other benefits to the partnership of which taxpayer was copartner and no facts indicated an intent that she be made a genuine partner for business reasons, did the District Court err in finding that taxpayer and his wife were not bona fide partners for federal income tax purposes?

2. Where taxpayer's wife entered into a partnership with a customer of the company in which taxpayer was co-owner and operator for the sole purpose of permitting taxpayer to avoid OPA Regulations and to receive more than the ceiling price for products sold and where she contributed no capital or services to the partnership, did the District Court err in concluding that the income she received represented income of the taxpayer assigned by him to his wife and taxable to him?

STATUTES AND REGULATIONS INVOLVED

Internal Revenue Code:

SEC. 11. NORMAL TAX ON INDIVIDUALS.

There shall be levied, collected, and paid for each taxable year upon the net income of every individual a * * * a tax * * *.

(26 U.S.C. 1946 ed., Sec. 11.)

SEC. 22. GROSS INCOME.

(a) *General Definition.* — "Gross income" includes gains, profits, and income derived from salaries, wages, or compensation for personal service

* * *, of whatever kind and in whatever form paid, or from professions, vocations, trades, businesses, commerce, or sales, or dealings in property, whether real or personal, growing out of the ownership or use of or interest in such property; also from interest, rent, dividends, securities, or the transaction of any business carried on for gain or profit, or gains or profits and income derived from any source whatever. * * *

(26 U.S.C. 1946 ed., Sec. 22.)

SEC. 181. PARTNERSHIP NOT TAXABLE.

Individuals carrying on business in partnership shall be liable for income tax only in their individual capacity.

(26 U.S.C. 1946 ed., Sec. 181.)

SEC. 182. TAX OF PARTNERS.

In computing the net income of each partner, he shall include, whether or not distribution is made to him—

* * * * *

(c) His distributive share of the ordinary net income or the ordinary net loss of the partnership, computed as provided in section 183 (b).

(26 U.S.C. 1946 ed., Sec. 182.)

Treasury Regulations 111, promulgated under the Internal Revenue Code:

SEC. 29.22(a)-1. *What included in gross income.*—Gross income includes in general compensation for personal services, business income, profits from sales of and dealings in property, interest, rent, dividends, and gains, profits and income derived from any source whatever, unless exempt from tax by law. (See sections 22(b) and 116.) In general, income is the gain derived from capital, from labor, or from both combined, * * *.

* * * * *

STATEMENT

The material facts as disclosed in the undisputed testimony and as found by the District Court may be summarized as follows:

Taxpayer was married in 1933. (R. 24.) In 1935 he went to Warrenton, Oregon, and constructed a shingle mill operated by the Warrenton Shingle Company, the stock for this company being subscribed by taxpayer, his father, and Richard C. Roles. (R. 25-26.) Taxpayer's wife joined him there three or four months later. (R. 30.) The stock interests of taxpayer and of Roles in the Warrenton Company are identical. (R. 28.) The money to purchase taxpayer's stock interest came from a bank account he and his father had together and a small amount from the operation of a service station taxpayer had operated prior to moving to Warrenton. (R. 27.) The Warrenton Company purchased a mill at Toledo which was operated by Roles. After the Warrenton mill burned down the Warrenton Company purchased a sawmill at Parkdale for a total amount of \$45,000 and the Parkdale Lumber Company was set up as a limited partnership in the first part of 1944. (R. 40-42, 94.) Of the purchase money for Parkdale \$20,000 was paid from the Warrenton Shingle Company account and from the Bronson Log account before the saw mill was taken over in 1944 and the balance was paid from profits received from the saw mill. (R. 40, 96, 97, Exs. 16, 17.)

The District Court found that taxpayer's wife contributed no capital directly or indirectly through any community property interest or otherwise, that she made no substantial contribution of services and did not in any substantial manner influence the conduct of the business or exercise any voice or control of the distribution of the income from the Parkdale Lumber Company. It found that taxpayer and Roles actually controlled and dominated the business of the Parkdale Lumber Company and that taxpayer, through his contribution of capital and through his management of the Parkdale Lumber Company, actually created the right to receive and enjoy all of the income therefrom taxed to taxpayer amounting to one-half of the income and actually received or controlled and treated as his own this income. The partnership known as the Parkdale Lumber Company made no substantial change in the economic relation of taxpayer and his wife since he continued to earn and produce the income taxed to him and controlled its use and disposition (R. 10-11.)

Taxpayer and his wife did not intend in good faith and with a business purpose to join together as partners in the conduct of the business of the Parkdale Lumber Company. Taxpayer's wife was not brought into the business as a partner for genuine business purposes but principally for the purpose of minimizing taxpayer's income taxes. (R. 11-12.)

Morgan Stark, one of the partners of the Beverly Roofing Company in California, was unsuccessful in trying to purchase shingles from the Warrenton Shingle

Company, because of prior commitments to others in the Los Angeles area. Stark proposed to take taxpayer and Roles into partnership with him so that they might share in the profits of the sale of shingles by Beverly. Inasmuch as the Warrenton Shingle Company was at that time selling its entire output at the ceiling price under OPA Regulations, taxpayer and Roles advised Stark that they could not accept a higher price. After Beverly had purchased the business of Ashbaugh, one of the customers of Warrenton in Los Angeles, the Ashbaugh Shingles and Shakes arrangement was entered into on or about August 3, 1945, between the Beverly Roofing Company, taxpayer's wife and the wife of R. C. Roles. Under the terms of the agreement Beverly managed and operated the partnership, furnished its capital and neither taxpayer's wife nor Mrs. Roles was to assume personal liability from its operations. The two women received 65 per cent of the profits for 1945 and 1946 and 50 per cent thereafter. Ashbaugh was organized to permit taxpayer and Roles to avoid OPA Regulations fixing the ceiling price for shingles sold by Warrenton to Beverly. The wives were made nominal partners because it would have been obviously illegal for taxpayer and Roles to become partners. Taxpayer was the real beneficiary of the arrangement and taxpayer, not his wife, had dominion and control over the income allocated to her. This arrangement was merely an assignment of income by the taxpayer to his wife. Taxpayer's wife made no contribution of capital or services to the Ashbaugh partnership nor did she contribute to the production of its income. The amounts she received

from Ashbaugh were paid to her solely because the Warrenton Shingle Company, owned and operated by taxpayer and Roles, was, under the circumstances, willing to and did ship a substantial part of its output of shingles to the Beverly Roofing Company. (R. 12-14.)

SUMMARY OF ARGUMENT

Taxpayer's wife was not a bona fide partner in the Parkdale Lumber Company for federal income tax purposes. None of the capital which went into the Parkdale mill originated with her directly or indirectly. This money came partially from earnings of her husband prior to their marriage, partially from his subsequent earnings in the Warrenton Shingle Company in which she had no interest, and partially out of the profits from the Parkdale mill to which she contributed nothing. There is no evidence of a gift by taxpayer to his wife either of an interest in the Parkdale mill or of property used to acquire it. Taxpayer's wife contributed no services either in connection with the Warrenton Shingle Company or the Parkdale mill other than to answer the telephone in her own home and to participate in family discussions. Moreover, she was not qualified to take an active part in the business. No business purpose was served in making taxpayer's wife a partner. Instead, she was brought into the business principally for the purpose of minimizing taxpayer's income taxes. The fact that one purpose in making her a general partner was to enable taxpayer to avoid personal liability in a hazardous enterprise and to prevent a deficiency judg-

ment against his assets does not supply the necessary business purpose for a bona fide partnership. Since the wife had no assets her general liability gave no stability to the business. Taxpayer at all times had control over the business and over the income from it and his wife did not substantially influence the conduct of the business or exercise any voice or control in the distribution of income.

Taxpayer's wife was not a bona fide partner in the Ashbaugh Wood Shingles and Shakes Company for federal income tax purposes. She became a partner in this enterprise of a customer of the Warrenton Company of which taxpayer was co-owner, along with the wife of the other co-owner for the purpose of avoiding OPA Regulations to enable taxpayer to receive more than the ceiling price for shingles when it would have been obviously illegal for him to have become a partner. She contributed no capital or services to the partnership. The arrangement did not manifest an intent in good faith and with a business purpose to join together as partners in the conduct of a business. Although taxpayer was not made a partner, he was the real beneficiary of the arrangement, and his efforts contributed to the income produced by it. The money she received was merely income of the taxpayer assigned by him to his wife, and such amounts were properly taxable to him.

ARGUMENT

I.

The Record Fully Supports the Determination of the District Court That Taxpayer's Wife Was Not a Bona Fide Partner in the Parkdale Lumber Company for Federal Income Tax Purposes.

Under the provisions of Sections 181 and 182 of the Internal Revenue Code, *supra*, partnerships are not taxable as such for federal income tax purposes but the individual members are taxable upon their distributive share of the partnership income. However, the provisions of the income tax statute apply only to bona fide partnerships which have a genuine business purpose. *Commissioner v. Culbertson*, 337 U.S. 733. Moreover the validity of a partnership arrangement under state law is not necessarily controlling for federal tax law purposes. *Commissioner v. Tower*, 327 U.S. 280; *Anderson v. Commissioner*, 164 F. 2d 870 (C. A. 7th), certiorari denied, 334 U.S. 819.

The first question presented here is whether taxpayer's wife was a partner in the Parkdale Lumber Company during the taxable years involved. The material evidentiary facts are not in dispute.

A. Taxpayer's wife contributed no capital.

The record shows conclusively that taxpayer's wife contributed nothing directly or indirectly to the purchase of the Parkdale mill and that the funds used for this purchase came from other sources. She testified that

at the time of her marriage in 1933 she had only \$100. (R. 137.) At that time taxpayer had approximately \$10,000. (R. 88.) He operated a service station and put his personal earnings into a bank account with his father. In 1935 taxpayer, his father and R. C. Roles formed the Warrenton Shingle Company for the operation of a shingle mill at Warrenton, Oregon. (R. 25.) Taxpayer's wife was not a stockholder and she put no money into the Warrenton business. (R. 93.) In 1944, after the mill at Warrenton burned, taxpayer and Roles bought the Parkdale mill, title to which was taken in the name of the Warrenton Shingle Company. (R. 39-41, 109.) The money for the Parkdale purchase came partly from the Warrenton Shingle Company, partly from funds in taxpayer's log account made up of his earnings from the Warrenton mill, and the remainder out of profits from the operation of Parkdale. (R. 96-97.)

The Parkdale partnership was set up as a limited partnership with taxpayer's wife and R. C. Roles designated general partners, the taxpayer and Mrs. Roles being designated limited partners. The agreement provided that taxpayer and Mrs. Roles were each to contribute \$2,500 in money and nothing in property. It was silent as to any contribution on the part of taxpayer's wife. (Exs. 25, 26.)

There is nothing in the record from which a gift from taxpayer to his wife of an interest in Parkdale can be inferred nor did taxpayer claim he had made a gift to his wife. The vague references in the testimony of Mr. Martin with respect to a gift tax return are in no way

related in the record to a purported gift to taxpayer's wife. (R. 55-56.) The fact that a down payment of \$10,000 was made (R. 96) and that four persons signed the partnership agreement can in no way be taken to mean that each was expected to contribute \$2,500 or that in some unexplained manner the taxpayer had made a gift to his wife of such amount. The theory of a gift was advanced as an inference for the first time in the taxpayer's brief on appeal. (P. 27.) It is not up to this Court to make suppositions and to supply missing facts not in the record. There is nothing in the record to indicate that taxpayer at any time divested himself of dominion and control over any property interest in Parkdale or in property that went into the purchase of Parkdale so as to constitute a valid gift to his wife.

Thus none of the money that went into the Parkdale mill originated with taxpayer's wife directly or indirectly. She had no interest in the funds that came from the Warrenton Company; she had contributed nothing to the bank account taxpayer maintained with his father; and likewise it is clear she had no part in the production of income from the Parkdale business from which the remainder of the funds were taken.

B. Taxpayer's wife contributed no services.

The partnership agreement did not specify who was to operate the business. (Exs. 25, 26.) The evidence is clear, however, that taxpayer operated the Parkdale mill (R. 97, 127) and that his wife did no physical work or bookkeeping in connection with it. She had three young

children to care for. She had never worked since her marriage and she had never participated in the operations of the mill at Warrenton. The only services the record shows she performed in connection with the operations at Parkdale were negligible, such as answering the telephone. There is nothing to indicate she would have been qualified to act as a true partner. On the contrary, she appeared totally unfamiliar with business operations in general and with details of the lumber and shingle business. There is nothing to indicate that taxpayer's wife influenced the conduct of the business or exercised any voice or control in its operations even through discussions with her husband. (R. 135-138.)

It is believed that taxpayer places too much emphasis on the fact that he and his wife discussed business matters. (Br. 20-21.) If discussions between husband and wife could be taken to be participation in management and control of a business the wife of practically every businessman could lay claim to a partnership status for tax purposes.

The suggestion appears in taxpayer's brief (pp. 30, 46) that perhaps the most significant contribution taxpayer's wife made was that she provided the necessary stability to the partnership. It is difficult to conceive how the partnership could acquire any stability through making taxpayer's wife a general partner subject to full personal liability when she had no money or property of her own apart from that of her husband. Subjecting herself to such liability could in no way add stability to the partnership as taxpayer contends. She had no

property which might have benefited the business by its availability for use as security by the partnership or for paying off any partnership losses. Her only resource appears to have been the right to draw on the taxpayer's bank account. Therefore, the contention in taxpayer's brief (p. 46) that her general liability would provide stability in a hazardous occupation is of no significance.

This is a situation where careful scrutiny of the transaction between members of the family indicates an attempt to shift the tax incidence by a mere surface change in ownership without disturbing the dominion and control of the taxpayer over the property. It is a mere camouflage. *Commissioner v. Culbertson*, 337 U.S. 733, 746-747. The arrangement was without substance and amounted only to an attempted allocation of one-half of taxpayer's income to his wife. An assignment of income flowing from the personal skill and services of the taxpayer is ineffective for tax purposes. The court below was correct in finding that all of such income should be taxed to the taxpayer. *Commissioner v. Tower*, 327 U.S. 280; *Burnet v. Leininger*, 285 U.S. 136; *Lucas v. Earl*, 281 U.S. 111; *Wilson v. Commissioner*, 161 F. 2d 556 (C. A. 4th), certiorari denied, 332 U.S. 769; *Grant v. Commissioner*, 150 F. 2d 915 (C. A. 10th); *Earp v. Jones*, 131 F. 2d 292 (C. A. 10th), certiorari denied, 318 U.S. 764.

Cases from other circuits on which taxpayer relies are all distinguishable on their facts. For example, in the case of *Cooke v. Glenn*, 78 F. Supp. 519 (W. D. Ky.), affirmed, 177 F. 2d 201 (C. A. 6th), the court

found that part of the working capital of the business was definitely traceable to taxpayer's wife. The cases of *Funai v. Commissioner*, 181 F. 2d 890 (C. A. 4th); *John L. Denning & Co. v. Commissioner*, 180 F. 2d 288 (C. A. 10th), and *Vaughan v. Carey*, 88 F. Supp. 967 (N. D. Ohio), are likewise distinguishable inasmuch as in these cases the courts found that taxpayer's wife contributed both capital and services to the partnership.

C. The Partnership served no business purpose.

There was no business purpose shown for including taxpayer's wife in the partnership. The business was admittedly set up as a limited partnership in order to protect taxpayer from any personal liability which might result from the operation of such a hazardous business, to prevent a deficiency judgment against assets he had invested in apartment houses with his two brothers and his father. (R. 42, 54, 106.) Such a purpose cannot be regarded as a bona fide business purpose from the standpoint of the federal tax law. The situation is analogous to that in *Quon v. Commissioner*, 165 F. 2d 215 (C. A. 9th), certiorari denied, 334 U.S. 845, where this Court affirmed the Tax Court's decision of March 28, 1947 (1947 P-H T. C. Memorandum Decisions, par. 47,077), that the formation of a partnership to avoid the freezing of assets does not serve to supply a business purpose in an attempted partnership for income tax purposes. As the Tax Court said there "it is not the kind of business purpose, in our judgment, which is indicative of the essential intent to really and truly join

together for the purpose of carrying on business as partners.”

The case of *Twin Oaks Co. v. Commissioner*, 183 F. 2d 385 (C. A. 9th), is clearly distinguishable from the instant case since in that case this Court found complete good faith in the formation of the partnership with no thought or intent to achieve tax avoidance. Moreover, all members of the partnership there were subject to unlimited personal liability. There was no subterfuge involved as there obviously is in the instant case.

As the Supreme Court stated in *Commissioner v. Culbertson*, 337 U.S. 733, 742, the question in each partnership case is whether, considering all the facts, “the parties in good faith and acting with a business purpose intended to join together in the present conduct of the enterprise.”

The case of *Nordling v. Commissioner*, 166 F. 2d 703 (C. A. 9th), certiorari denied, 335 U.S. 817, involves many of the same factors that are present in the instant case. The wife had no separate property and furnished no capital or services to the business. Her credit was not relied on in financing. This Court held there was no manifest intention that she have a real ownership of a partnership interest and concluded that she was only a nominal partner. It stated (p. 704): “In tax matters the realities of a transaction, not artificialities, are given effect.” See also *Bloomfield Ranch v. Commissioner*, 167 F. 2d 586 (C. A. 9th), certiorari denied, 335 U.S. 820.

The formal execution of articles of partnership is not conclusive of the existence of a partnership for federal tax purposes in the absence of an intent to carry on business as true partners. As the Supreme Court said in *Commissioner v. Tower*, 327 U.S. 280, 291, "By the simple expedient of drawing up papers, single tax earnings cannot be divided into two tax units and surtaxes cannot be thus avoided."

The arrangement here was completely lacking in substance and the evidence disclosed no intent that the wife have a real ownership of the partnership interest. The self-serving statement of taxpayer's co-partner Mr. Roles that the "agreement was that we would all go in as partners and divide this Parkdale up equally between all" (R. 123), is not at all conclusive as to the parties' intent to make taxpayer's wife a partner. The record supports the court's finding (R. 12) that she was brought into the enterprise not as a partner for a genuine business purpose but rather principally for the purpose of minimizing taxpayer's income taxes. (R. 46.) The Court must look at the actualities of the transaction by which taxpayer seeks to avoid taxes and if it finds there is a subterfuge the arrangement may be disregarded for tax purposes. *Yiannias v. Commissioner*, 180 F. 2d 115 (C. A. 8th). Transactions must not be mere tax dodging devices without substance or business benefits. *Helvering v. Clifford*, 309 U.S. 331; *Griffiths v. Commissioner*, 308 U.S. 355; *Higgins v. Smith*, 308 U.S. 473; *Gregory v. Helvering*, 293 U.S. 465.

The amounts distributed to taxpayer and his wife from the Parkdale operations all went into the same joint account. (R. 100.) Taxpayer contributed the capital (R. 96-97) and received, controlled, and treated as his own all of the income from Parkdale. (R. 10, 101-104.) It was taxpayer and not his wife who created the right to receive and enjoy all of the income.

In reiterating the principles enunciated by it in the *Tower* case, *supra*, the Supreme Court in *Commissioner v. Culbertson*, 337 U.S. 733, 739-740, stated:

In the *Tower* case we held that despite the claimed partnership, the evidence fully justified the Tax Court's holding that the husband, through his ownership of the capital and his management of the business, actually created the right to receive and enjoy the benefit of the income and was thus taxable upon that entire income under §§ 11 and 22(a). In such case, other members of the partnership cannot be considered "Individuals carrying on business in partnership" and thus "liable for income tax . . . in their individual capacity" within the meaning of § 181. If it is conceded that some of the partners contributed neither capital nor services to the partnership during the tax years in question, as the Court of Appeals was apparently willing to do in the present case, it can hardly be contended that they are in any way responsible for the production of income during those years. The partnership sections of the Code are, of course, geared to the sections relating to taxation of individual income, since no tax is imposed upon partnership income as such. To hold that "Individuals carrying on business in partnership" include persons who contribute nothing during the tax period would violate the first principle of income taxation: that income must be taxed to him who earns it.

As the District Court found, from all the facts and circumstances throwing light on or tending to show the true intent of the parties to the agreement, taxpayer and his wife did not intend, in good faith and with a business purpose, to join together as partners in the conduct of the Parkdale enterprise. (R. 11-12.) We submit that the District Court applied the correct principles and that its conclusion is fully supported by the record.

II.

The Record Fully Supports the Determination of the District Court That the Arrangement by Which Taxpayer's Wife Received Income from Ashbaugh Wood Shingles and Shakes Was Merely an Assignment of Income by Taxpayer Who Was the Real Beneficiary.

The District Court concluded that the amounts of money paid during the taxable years involved to taxpayer's wife by the Ashbaugh Wood Shingles and Shakes Company represented income of the taxpayer assigned by him to his wife and that such amounts were properly taxed to the taxpayer. (R. 15.) This conclusion is fully supported by the facts in the record disclosing the manner in which the Ashbaugh Company was set up and operated.

Prior to the formation of the Ashbaugh Company in August, 1945, Morgan Stark of the Beverly Roofing Company in Los Angeles had negotiated with Mr. Roles in an attempt to buy shingles from the Warrenton Company. (R. 128.) It was difficult to get shingles at that

time on account of existing shortages and black market operations. (Ex. 129, p. 7.) When Stark was unsuccessful in obtaining shingles from Warrenton because of prior commitments to customers in the Los Angeles area, one of which was Ashbaugh, Stark raised the question whether he could get shingles from Warrenton if he bought out Ashbaugh but again received no satisfactory answer. (Ex. 129, pp. 11-13.) Stark then proposed to take taxpayer and Roles into a partnership so that they might share the profits from the sale of shingles by the Beverly Roofing Company but they advised him they could not accept a higher price than the ceiling price set under Regulations of the Office of Price Administration. Taxpayer was evasive in his testimony with respect to this offer but testified that he and Roles told Stark they could not take money under the table at more than OPA prices. (R. 13, 83.)

After making tentative arrangements to buy out Ashbaugh, Stark returned to Oregon and asked Mrs. Roles and taxpayer's wife whether they could influence their husbands to send him shingles under an arrangement whereby they would benefit financially and they told him they thought that could be arranged. (Ex. 129, pp. 14-15.) Stark then entered into the Ashbaugh Company arrangement with taxpayer's wife and Mrs. Roles. This agreement was signed by him as a representative of the Beverly Roofing Company as party of the first part and by taxpayer's wife and Mrs. Roles as parties of the second part. (Ex. 123.) Stark stated in his deposition that if there had not been an inability to secure shingles and if he had been able to deal directly with

the mill he would not have entered into any partnership and that the only way to get shingles at that time was through influence to make it worth the while of the mills to furnish the shingles. (Ex. 129, p. 34.) The following colloquy occurred in his deposition (Ex. 129, pp. 44-45):

Q. Then the sole reason for taking in Mr. Roles' and Mr. Bronston's wives was to get shingles from the Warrenton Shingle Company?

A. Right.

Q. You knew you could get the shingles from the husbands through the wives and you knew you could not take the husbands into partnership, is that right?

A. Right.

Q. And if you could have taken the husbands into partnership there would have been no necessity to take the wives, correct?

A. Right.

Q. If you could have gotten the shingles without taking anybody into partnership you would have made about 65% more wouldn't you?

A. Probably, yes.

Q. In other words you were forced to form this partnership in order to get the shingles from Warrenton Shingle Company, correct?

A. That is absolutely correct.

Stark admitted it would have been illegal to have entered into a partnership with taxpayer and Roles. (Ex. 129, p. 70.) It is clear from the record that the District Court was correct in finding that Ashbaugh was organized as a mere subterfuge to permit taxpayer and Roles to avoid OPA Regulations and that the wives were made nominal partners in the enterprise only because it was obviously illegal for the taxpayer and Roles to enter into the arrangement. (R. 141.)

It is difficult to see where any business purpose was served by including taxpayer's wife as a partner. She was made a partner so that she would influence her husband to send shingles to Beverly when it would have been illegal for her husband to be a partner and for the purpose of enabling taxpayer to get a higher price for shingles than was permitted under OPA Regulations. Such an arrangement does not manifest an intent in good faith and with a business purpose to join together as partners in the conduct of a business.

Under the terms of the Ashbaugh agreement the Beverly Roofing Company was to manage and operate the partnership and to furnish all of its capital. Taxpayer's wife and Mrs. Roles were to receive 65 per cent of the profits for 1945 and 1946 and 50 per cent of the profits thereafter. (Ex. 123.) Taxpayer's wife made no contribution of capital or services to Ashbaugh. (Ex. 129, p. 56.) She testified the only thing she did was to endorse the checks she received and that she did nothing in a business way for the firm at all. (R. 134.) Taxpayer testified that the checks his wife received were deposited in the joint bank account with him on which both could draw. (R. 86.) Mr. Stark testified (Ex. 129, p. 56):

Q. What work did Mrs. Bronson do to your knowledge?

A. She exerted her influence on her husband I suppose.

Q. You suppose that's all she did?

A. Yes. She was in Parkdale at the lumber mill there.

In taxpayer's brief (p. 48) it is stated that the Gov-

ernment is contending that the money received by taxpayer's wife was actually the income of the Warrenton Company. (Br. 48.) There is nothing in the record to indicate that such a contention has ever been made and it is, therefore, unnecessary to discuss the point raised as to whether or not a corporation may be a partner either under Oregon law or for federal income tax purposes.

The argument in taxpayer's brief is unsound that an individual may not be taxed on profits earned from property which he neither owns nor controls (Br. 47-50.) The courts have repeatedly held that it is the command of the taxpayer over the income which is the concern of the tax laws. If ownership or status is disguised the taxing authorities may look through the disguise to the realities. *Nordling v. Commissioner*, 166 F. 2d 703 (C. A. 9th), certiorari denied, 335 U.S. 817; *Yiannias v. Commissioner*, 180 F. 2d 115 (C. A. 8th); *Semmler v. Commissioner*, 173 F. 2d 218 (C. A. 6th); *Anderson v. Commissioner*, 164 F. 2d 870 (C. A. 7th), certiorari denied, 334 U. S. 819; *Epps v. Commissioner*, 164 F. 2d 482 (C. A. 6th); *Walker v. Commissioner*, decided June 28, 1946 (1946 P-H T. C. Memorandum Decisions, par. 46,159), affirmed, 160 F. 2d 313 (C. A. 3d).

The use of the name of taxpayer's wife in the Ashbaugh agreement which thus serves no business purpose should not be permitted to reduce the tax on income from the business operation where taxpayer furnished the consideration. The taxpayer was the real beneficiary of the arrangement and he, not his wife, had dominion

and control over the income allocated to her. She in no way contributed to the production of the income of Ashbaugh. The amounts paid to her were paid solely because the Warrenton Company owned and operated by taxpayer was willing to ship a substantial part of its output of shingles to the Beverly Roofing Company. (Ex. 129, p. 34.) The evidence clearly supports the District Court's finding that the money paid to taxpayer's wife by the Ashbaugh Company represented income of the taxpayer assigned by taxpayer to his wife and that such amounts were properly taxable to him. (R. 15.)

III.

The Findings of the District Court Are Supported by the Record and Must Be Affirmed.

The findings of the District Court with respect to both partnership arrangements are conclusive inasmuch as the record fully supports them. The taxpayer failed to show that these findings were clearly erroneous. In the absence of such a showing and where the findings are supported by competent probative evidence such findings cannot be set aside by this Court. Rule 52(a), Federal Rules of Civil Procedure. *Lerner Stores Corp v. Lerner*, 162 F. 2d 160 (C. A. 9th); *Lincoln Nat. Life Ins. Co. v. Mathisen*, 150 F. 2d 292 (C. A. 9th); *Wingate v. Bercut*, 146 F. 2d 725 (C. A. 9th).

CONCLUSION

The decision of the District Court was correct on both issues and should be affirmed.

Respectfully submitted,

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MAY, 1951.

No. 12846

**United States Court
of Appeals**

For the Ninth Circuit

CHARLES D. BRONSON, JR.,

Appellant,

vs.

HUGH EARLE, Collector of Internal Revenue for
the District of Oregon and United States of
America,

Appellees.

Appeal from the United States District Court
for the District of Oregon

REPLY BRIEF OF APPELLANT

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REPLY BRIEF OF APPELLANT

I.

THE RECORD FAILS TO SUPPORT A DETERMINATION THAT PARKDALE LUMBER COMPANY WAS NOT A BONAFIDE PARTNERSHIP FOR TAX PURPOSES.

“There is no special concept of partnership for tax purposes as distinguished from general law purposes.” *Culbertson vs. Commissioner*, 337 U. S. 733. (Appellant’s Op. Br. p. 14.)

If the Supreme Court meant anything by its repetition of this fact in the *Culbertson* decision, the Appellee’s brief fails.

The position of Appellee is that this was not a bonafide partnership because one of the partners did not contribute to the partnership according to some standard set up in their judgment.

That is not the holding in the *Culbertson* case, but quite to the contrary.

The *Culbertson* case holds that it is the judgment of the parties and not the judgment of the Commissioner or outsiders which determine the bonafides of a transaction, and if the parties themselves intended to form a partnership for the conduct of a business, it is valid for tax purposes as well as general law purposes. (Appellant’s Op. Br. p. 19 and 21.)

To hold that the partnership in question was not valid for tax purposes would render the repeti-

tion of this principle in the Culbertson case absolutely meaningless unless it could be said that there was obviously no intent by the parties themselves to form a partnership (in this case four parties).

The facts of this case do not so indicate. It is not the case of an existing business where a family member is "brought into" the business for the sole purposes of reducing the tax to the party conducting said business. It is this latter scheme that the Commissioner is entitled to attack but certainly not the former.

Appellee's attempt to distinguish the case of *Twin Oaks Co. vs. Commissioner*, 183 F. 2d 1385 (CA9) on the ground that the court found complete good faith in the formation of that partnership and that it was not formed for tax avoidance purposes (Appellee's Br. p. 16).

Where is that good faith lacking in the present case?

The partnership was not formed for tax avoidance purposes, because there was no taxable income to avoid when the partnership was formed.

Appellees carefully avoid discussion of this in their brief but attempt to avoid the effects of the *Twin Oaks Co.* case by saying there was no subterfuge found in that case. There is none in the present case.

Is there any subterfuge when parties before starting the business operation cause the articles of partnership to be publicly recorded in the county where the operation is to be carried on and likewise with the corporation commissioner?

By what fact do they claim subterfuge and what place has such an unsupported inuendo in a brief before this court?

It has been *repeatedly held* and *particularly held* in the *Twin Oaks Co.* case that a person or group of persons has the right to choose any form or entity of doing business.

Appellant takes no issue with appellee concerning the cases cited by them holding that a mere paper transaction where there is an *existing* business for the *sole purpose* of minimizing taxes may be inquired into concerning the actuality of such an arrangement.

That was the rule stated in the cases cited by appellees prior to the Culbertson decision. (Appellee's Br. p. 14.)

Commissioner vs. Tower, 327 U. S. 280;
 Burnet vs. Leminger, 285 U. S. 136;
 Lucas vs. Earl, 281 U. S. 111;
 Wilson vs. Commissioner, 111 F. 2d 556;
 Grant vs. Commissioner, 150 F. 2d 915;
 Earp vs. Jones, 131 F. 2d 292;
 Nordling vs. Commissioner, 166 F. 2d 703;
 Bloomfield Ranch vs. Com., 167 F. 2d 581.

Some of the cases cited above are not in point factually. However the principle has been established and is conceded, but that principle is not applicable here.

It probably is also the rule after the Culbertson decision, although considerable doubt has been cast on the prior decisions in view of the fact that the dissenting opinions in the Culbertson case treated that holding as a complete reversal of *Commissioner vs. Tower*.

Yiannias v. Commissioner, 180 F. 2d 115.

The fact that the circumstances of this case are directly contrary to the facts of the typical tax avoidance cases leaves both appellant and appellee in reliance on the same propositions as set forth in Culbertson and subsequent decisions.

If the taxpayer here had been operating an *existing* business and had “brought his wife into” that business without in any way changing the operation, the decisions relied upon by appellee would be applicable.

However, we have not an existing but a new business: not a continuous management or control, but a new management and control of four individuals: not a continuity of income but no income at all at its inception; not a subterfuge but a new business enterprise with full disclosure of the parties and their interests, not an existing capital contribution but four capital contributions; not a continuity of a limited or general liability, but separate and distinct limitations and creation of liabilities. These are the factual distinctions relied upon by appellant.

The only case cited by appellees in their brief decided since the Culbertson decision was *Yiannias vs. Commissioner*, 180 F. 2d 115.

This case involved the attempted paper transfer to taxpayer's wife of the taxpayer's total interest in his business. The lessor of the business property

refused to recognize the taxpayer's wife as Lessee. One of the partners in that existing business accepted her as a partner conditioned on the fact that the taxpayer would continue in the business and that no change in its operation would result therefrom. Taxpayer's wife was not liable for rents, insurance, taxes or any other liability.

The court said:

"If it could be held that this assignment as between the parties had the effect of divesting petitioner of his rights or liabilities arising therefrom it would not necessarily substitute petitioner's wife as a member of the association or partnership, producing the income. There was no new agreement or association — the partnership or association was run exactly as before the assignment: — the consent of Macclay to withdrawal of petitioner was with the understanding that the partnership would run exactly as before without any real change. The wife had no contact with her alleged associates."

That case is the typical tax avoidance arrangement to which we have referred and is changed from the typical situation only in the fact that the husband attempted (but did not perfect) a complete divestiture of his interest in the partnership.

Appellees state that cases cited by appellant (Appellee's Br. p. 14).

Cooke vs. Glenn, 78 F. Sup. 519, 177 F. 2d 201;
 Funai v. Commissioner, 181 F. 2d 890;
 John Denning & Co. vs. Commissioner, 180 F. 2d 288;
 Vaughn vs. Carey, 88 F. Supp. 967.

which cases incidentally are all cases decided after *Culbertson vs. Commissioner*, are distinguishable by the fact that the court found capital, services or both were contributed by the wife.

Before showing that the facts of those cases and only those cases are controlling in the present case, we should point out that the capital and services test were definitely overruled as exclusive tests in the *Culbertson* decisions where the Supreme Court said: "That is the vice in the tests adopted by the tax Court."

Appellant points out that *John Denning & Co. vs. Commissioner* was not cited in appellant's brief in connection with the Parkdale transaction and is not factually applicable; *Funai v. Commissioner* was cited for the proposition that it is the right to receive income and not the exercise of that right

which is controlling and appellant does not contend that the facts in that case are controlling. *Vaughn vs. Carey* is cited by appellant for the proposition that the choosing of a particular business entity whether for tax purposes or otherwise is entirely proper. However, since *Appellees state* that *Vaughn v. Carey* and *Cooke vs. Glen* are decided on a finding that capital of the business was contributed, it should be pointed out that the capital in *Cooke vs. Glen* from the wife originated with the husband, (Appellant's Br. p. 29). When the court said, "Although the capital contribution of Elva Cooke to Broadway Chevrolet originated with her husband, V. V. Cooke, the amount borrowed was contributed to a *new venture* in the same proportions as V. V. Cooke, Almond Cooke and Jennings Cooke, the other partners, and in that proportion Elva Cooke is liable for Federal income taxes attributable to her one-fourth interest. And that in *Vaughn vs. Carey*, the wife had, prior to the formation of the partnership, transferred her stock in an unrelated corporation to her husband and that the proceeds of the sale of that stock later provided the capital for the partnership.

If counsel for appellees now concede that the findings of these cases are correct as to capital and services, we should then point out that the capital and services performed in those cases were no greater than in the present case, and a reversal on those authorities is indicated.

It was held in *Vaughn v. Carey* that Mr. Ramsey, one of the partners was the *only* partner actively engaged in running the business on a day to day basis. He was the general manager. Mr. Vaughn was president and general manager of another business, and Mrs. Ramsey and Mrs. Vaughn both had children at home. Mr. Vaughn and Mrs. Vaughn and Mrs. Ramsey would meet occasionally, however, to discuss the partnership business. In addition there was testimony of a third party that the wives did not attend meetings and knew nothing of the business. As to "services" in *Cooke vs. Glen* the partnership agreement placed the management in one partner and the court specifically states that no physical services were performed by the wives of the other partners.

Since appellant failed to cite this case of *Vaughn vs. Carey* on the general applicability of facts to

the present case in his opening brief and since the facts are almost identical with the present facts, appellant now cites this case along with *Cooke vs. Glen* to the court as general authority for appellant's position.

In both of the cases last above referred to, there were four partners, capital originating with the husband, a complete lack of physical services to the partnership, both cases were decided after *Culbertson*, both cases were cases of a new business venture and are factually the only and most closely analagous cases to the facts of this case found and cited by either appellant or appellee.

The court in the *Vaughn vs. Carey* case stated:

"If these two plaintiffs previously had been engaged in an exceedingly profitable enterprise and in order to avoid higher tax brackets brough their wives together with each other into nominal partnership with no genuine participating interest in the wives, I could see some basis for adjusting of income, but here these parties were engaged in a new and untried venture at the inception of which there was no assurance whatever that here would be any profit or tax liability."

"This seems to me, well illustrates the court's position that there could have been no purpose here, and I hold that there was no such purpose

of a device for avoiding or saving taxes such as is claimed by the government.”

Appellees state that the partnership served no business purpose.

Appellant contends however, that the business purpose referred to in the Culbertson decision is that of the ordinary definition of a partnership “to enter into a business for profit.”

Such a “business purpose” has no relationship to the business entity chosen for the conduct of a business.

If two or more persons join together for the purpose of conducting a business for profit that is sufficient to form a partnership.

Could it be contended that a corporation is invalid merely because that form is selected to protect its owners, from liability or for any other reason. The selection of this form of enterprise would serve no business purpose in the light contended by appellees, for a business could be operated just as effectively as an association, as a trust, as a partnership, or as a proprietorship. If persons choose to do business as a trust or a corporation, the form of business entity is not invalid for tax

purposes, merely because the same business could be operated in some other form. It is not the mere whim of the Commissioner that determines taxability of an entity.

The case of *Quon vs. Commisioner* (165 F. 2d 215) cited by appellees in support of their statement was a case involving a partnership of citizens some of whom held their interests in effect as trustees for non-citizen relatives in order to prevent the assets of the aliens from being seized or frozen in time of war.

The attempt to apply that situation to the present case is obviously erroneous. The court held that the attempt to prevent freezing of funds was not a business reason in itself where it was for the protection of property unrelated to any business purpose. Here, however, taxpayer had another business and other partners that it was necessary to protect and hence, if this is applicable at all, there was a definite business reason for choosing the form of enterprise that was selected although it was not appellant alone who selected the business entity but three other parties.

In the Quon case the court states that the limited partners were included as mere depositories for a purpose other than one connoting a true partnership. While here, on the contrary, we have a purpose which is consistent with, and only with, the intent to form a valid partnership, and is an additional reason for taxpayer's wife as a partner. The Quon case was again, of course, decided prior to the Culbertson case.

Appellees state (Br. p. 13-14) that no stability was added to the partnership by the wife being a general partner. In the first place a partnership is stabilized by the inclusion of any morally and financially responsible person for there is one additional party to whom creditors may look for payment of their obligations. Appellees state factually that the wife of appellant had no assets. Surely counsel for plaintiff are not so naive as to believe that the joint ownership of a substantial amount of securities, a substantial bank account and real property held as tenants by the entireties are not assets readily available to creditors of the partnership where the wife is a general partner.

There being no authority to the contrary, the matter of the Parkdale income should be decided

on the current principles set forth in the following cases:

Culbertson vs. Commissioner, 337 U. S. 733;
 Vaughn vs. Carey, 88 F. Sup. 967;
 Cooke vs. Glen, 78 F. Sup. p 619 A, 177 F. 2d
 201.

II.

THE RECORD FAILS TO SUPPORT A DETERMINATION THAT INCOME OF ASHBAUGH WOOD SHINGLE AND SHAKES WAS INCOME OF TAXPAYER ASSIGNED TO HIS WIFE.

The question to be decided in the matter of Ashbaugh Shingles and Shakes is "who is taxable on the income of that partnership reported by taxpayer's wife?"

We do not intend to get into a discussion of matter extraneous to the issue of taxation of income. It is sufficient to state that the legality of the Ashbaugh partnership is admitted by Appellants (Deposition of Morgan Stark, p. 36, Appellant's Br. p. 26) where Mr. Winter states: "We are not questioning the legality of your arrangements with the wives of Mr. Roles and Mrs. Bronson. You have a perfect right to enter into an agreement with them."

This court (*Twin Oaks Co. vs. Commissioner*) as well as other courts have repeatedly held that where a taxpayer has divested himself of or does not have any right in the management or ownership of, or income from a business entity, he may not be taxed on the income therefrom.

The earnings of this partnership came from, and exclusively from, the sale of shingles by that partnership concern in the Los Angeles area.

Appellant had no right to control that operation or any part thereof. He made no capital contribution, he had no right to the management or control nor had he ever had such a right, he neither received nor had the right to receive any of its income. The corporation of which he was a partial owner had as a customer Louis B. Ashbaugh who continued as a customer until he sold his interest to Beverly Roofing Company, a transaction with which taxpayer had no concern. Warrenton Shingle Company continued to supply shingles to Ashbaugh Wood Shingles until that company failed to make payment for merchandise shipped at which time its supply was terminated by the corporation.

The cases cited by appellees are not applicable and are discussed separately as follows:

The case of *Nordling vs. Commissioner*, (166 F. 2d 703) cited by appellants (Br. 23) was a case where one brother purchased the interest of another brother in an existing business and included the wife's name on a part of the papers involved in the transfer of the one-half interest. The case, decided before Culbertson, is a typical tax avoidance arrangement and has no relation to the facts concerning Ashbaugh income.

The case of *Yiannias vs. Commissioner* (180 F. 2d 115) which has been previously discussed was again a typical tax avoidance re-arrangement of an existing business where the wife assumed no obligation and received merely the right to receive the income where the husband continued to manage the business and be responsible for the obligation under an agreement with another partner to so do.

Semmler vs. Commisioner, 173 F. 2d 218 is a very brief opinion holding that in an existing business where a father made a gift of partnership interest to four minor sons and retained complete control of the business and received substantial eco-

conomic benefits, the income was properly taxable to him. Again this was the typical tax avoidance rearrangement.

Anderson vs. Commissioner, 164 F. 2d 810 was a case of gifts of corporate stock to family members with dissolution and a new partnership or right to create a partnership formed. It was held the attempted gifts were invalid for tax purposes. This was decided before the *Culbertson* case and in view of *Twin Oaks Co. vs. Commissioner* might be held to the contrary now.

In this case however the court indicated that if the passage of title was accomplished by a shift of economic benefits direct and indirect the same would be valid.

Later decisions have cast considerable doubt on the effects of this decision and *Epps vs. Commissioner*: See

Greenberger v. Commissioner, 7 TCM 346;
Apt. vs. Birmingham, 89 F. Sup. 361;
Willard vs. U. S., 89 F. Sup. 977;
Twin Oaks Co. vs. Commissioner, 183 Fed.
 218.

Epps vs. Commissioner, 164 F. 2d 481, in a brief opinion, held that where gifts of capital were made

to family members, it was a continuation of the corporate business with no apparent change in management.

The case of *Walker vs. Commissioner* (1946) (P.H.T.C. Memo, Par. 36, 159) was decided under the case of *Commissioner v. Tower* — on the principles of capital and services, later overruled in *Culbertson vs. Commissioner*. Here also there was a retention of control of the business by the donor.

While appellees state in their brief (p. 23) that taxpayer's argument is unsound "that an individual can not be taxed on profits earned from a property which he neither owned or controls" yet THEY FAIL TO CITE A SINGLE CASE *which has held to the contrary*. In each of the cases cited by appellees, taxpayers retained the control of the management and the income in an existing business.

The principle is now firmly established that where a person has no interest, right of management or control, nor right to receive the profits of a partnership business, the income therefrom can not be taxed to him.

Under the facts as to Ashbaugh, there was again no reduction (as stated by Appellee's (Br. 23)) of

income since at the formation there was no income to reduce.

The matter of the Ashbaugh income should be decided according to the current principles of:

Twin Oaks Co. v. Commissioner, 183 F. 2d 385;

John L. Denning Co. vs. Commissioner, 180 F. 2d 288;

Bein, 14 TC 1144;

Vance, 14 TC 1168.

**APPELLANT'S REPLY TO APPELLEES
CONCLUSION CONCERNING FINDINGS
OF FACT AND CONCLUSIONS OF LAW**

The findings of fact and conclusions of law of the District Court should be set aside.

Where the evidence as applied to the law fails to support the findings of fact and conclusions of law, the case must be reversed on appeal.

There are no disputed facts in this record. All of the testimony is from the partners of the partnership, and by Mr. Martin supplemented by the deposition of Morgan Stark as to the income of Ashbaugh Wood Shingles and Shakes. No evidence was introduced by appellees.

The documentary evidence is unimpeached and no rebuttal testimony was offered on the trial.

The evidence permits of only one conclusion that the parties intended to form the Parkdale partnership and they fulfilled that intent. There was no basis on which Ashbaugh Shingle income can be allocated to taxpayer for tax purposes or any other purpose.

Note: Attention is called to page 12 of Appellee's brief in which appellee states — "The theory of a gift was advanced as an inference for the first time in taxpayer's brief on appeal." Since the appellees have seen fit to go outside the record in making this statement, we feel free to state to the court that the matter of gift capital was argued to the trial court after the close of plaintiff's case and by objection to findings and has consistently been relied upon by appellant and not by inference but by direct assertion occupying pages 26, 27, 28 and 29 of appellant's brief.

CONCLUSION

The case should be reversed and a decision rendered in favor of appellant both as to Parkdale and Ashbaugh income.

Respectfully submitted,

WARDE H. ERWIN

BOYD, FERRIS & ERWIN

DAVID PATTULLO

No. 12846

**United States Court
of Appeals**

For the Ninth Circuit

CHARLES D. BRONSON, JR.,

Appellant,

vs.

**HUGH EARLE, Collector of Internal Revenue for
the District of Oregon and United States of
America,**

Appellees.

**Appeal from the United States District Court
for the District of Oregon**

PETITION FOR REHEARING

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America,

Appellees.

Appeal from the United States District Court
for the District of Oregon

PETITION FOR REHEARING

Pursuant to Rule 25, of the Rules of Civil procedure of this court, appellant, by and through his attorneys of record, petitions and alleges that:

I.

The holding in this court is essentially that there

was sufficient evidence to support the findings and judgment of the lower court.

II.

The court's opinion was entered September 18, 1951, and the time for filing a petition for rehearing expires October 19, 1951.

III.

There is pending before Congress an amendment to the Internal Revenue Code, being H. R. 4473, Revenue Act of 1951, Section 313, amended by Senate Resolution as Section 339 of said bill providing for election by the taxpayer (a member of a so-called family partnership) whereby the spouse shall be recognized as a partner for tax purposes and permitted refunds under certain circumstances such provisions being retroactive to taxable years after 1938. The sections amended are Title 26, Subtitle A, Chapter 1, Supplement F to which shall be added a new section entitled "Family Partnership" and Title 26, Section 3797 (a) (2) U. S. C.

IV.

Said bill having passed the House and Senate, but in different forms, has been referred to a joint conference committee and it appears that the conferees have approved the Senate amendment to H. R. 4473, hereinabove mentioned, and it is anticipated that such legislation when and if it becomes law will, by virtue of such amendment, be determinative of the cause submitted to this court in favor of plaintiff.

V.

A final judgment has been rendered in the District Court of Oregon in favor of taxpayer's partner determining similar matters as determined in the present litigation, and that in said cause a judgment has also been entered in the case of taxpayer's partner on the same facts herein determined in favor of the United States from which said judgment an appeal is now pending in this Court.

VI.

Taxpayers have filed claim for refund based on a loss carry back of losses sustained by the partner-

ship for later years which involve the same matters presented in each of the said causes and which said matters are pending before a conferee on protest of taxpayers and can not be resolved in view of the conflicting judgments entered in the two causes.

VII.

It would appear that such legislation when passed will resolve the conflicts, doubts, and disputes involving the question as to the taxability of income from the so-called family partnership both as to this and the matters contained in *Roles v. Earle*, No. 13000, and the matters now pending before the conferee.

VIII.

Said legislation when passed will not provide sufficient time for taxpayer to print this petition and file the same with this Court within the thirty-day period after the same may become effective.

IX.

In the event that such legislation will not be determinative of this cause, petitioner will advise

the Court, and if contrary, petitioner will submit to the court copies of the pertinent parts of the legislation in support of the matter.

WHEREFORE, petitioner prays that in the event that such legislation is determinative of the cause herein contained, that the decision heretofore entered by this Court be reversed and judgment be entered accordingly or that in the alternative that petitioner be granted additional time in which he be allowed to file an amended petition if the legislation be so determinative of the issues contained herein, and that the mandate be stayed.

Warde H. Erwin

Of Attorneys for Petitioner

Certificate:

I, WARDE H. ERWIN, of attorneys for appellant, do hereby certify that in my judgment the foregoing petition is well founded in law in that legislation now pending and probably effective prior to the expiration of time to file this petition will be determinative of the issues involved in this case and contrary to the holding therein, and that

this petition is not interposed for the purpose of delay but for the preservation of any legal rights of appellant and that the court will be promptly advised as to the effect of said legislation upon passage thereof.

Ward H. Erwin

Of Attorneys for Appellant

No. 12848

United States
Court of Appeals

For the Ninth Circuit.

serial — 2675
THE PARKER APPLIANCE COMPANY, a Corporation,

Appellant,

vs.

IRVIN W. MASTERS, INC., and JOSEPH C. COLLINS, Doing Business Under the Firm Name and Style of Collins Engineering Company,

Appellee.

Transcript of Record
IN FOUR VOLUMES

Volume I
(Pages 1 to 466)

Appeal from the United States District Court,
Southern District of California
Central Division.

No. 12848

United States
Court of Appeals
For the Ninth Circuit.

THE PARKER APPLIANCE COMPANY, a Corporation,

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[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in *italic*; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in *italic* the two words between which the omission seems to occur.]

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In the District Court of the United States, South-
ern District of California, Central Division

Civil Action No. 7874-B

THE PARKER APPLIANCE COMPANY,

Plaintiff,

vs.

IRVIN W. MASTERS, INC.,

Defendant.

COMPLAINT FOR INFRINGEMENT OF
UNITED STATES LETTERS PATENT
No. 2,212,183

To: The Honorable Judges of the United States
District Court, in and for the Southern District
of California, Central Division, Ninth Circuit.

Plaintiff, The Parker Appliance Company of
Cleveland, Ohio, for its complaint against Irvin W.
Masters, Inc., of Burbank, California, Defendant,
alleges:

I.

Plaintiff, The Parker Appliance Company, is a
corporation organized under and existing by virtue
of the laws of the State of Ohio and has its princi-
pal office and place of business in the City of Cleve-
land, in the County of Cuyahoga and State of Ohio,
and has a regular and established place of business
in the City of Los Angeles, in the County of Los
Angeles and State of California.

II.

Defendant, Irvin W. Masters, Inc., is a corporation organized under and existing by virtue of the laws of the State of California and has its principal office and place of business in the City of Burbank, in the County of Los Angeles and State of California, within the Southern District of California, Central Division.

III.

This is a suit arising under the Patent Laws of the United States for infringement of United States Letters Patent issued to Arthur L. Parker of Cleveland, Ohio, Number 2,212,183, dated August 20, 1940, upon an application filed March 2, 1938, and Plaintiff seeks the equitable remedy of an injunction and asks for an accounting of profits and an award for damages.

IV.

On March 2, 1938, Arthur L. Parker, being the first, original and sole inventor of certain improvements in Tubing Coupling, filed in the United States Patent Office, his application for Letters Patent thereon, Serial No. 193,569.

V.

On August 20, 1940, United States Letters Patent Number 2,212,183 for said invention were duly issued to said Arthur L. Parker. A copy of said Parker Patent Number 2,212,183 is attached hereto and marked "Plaintiff's Exhibit 1."

VI.

By written instrument, dated December 28, 1943, and duly recorded in Liber B-198, page 4 of the Transfers of Patents of the United States Patent Office, on December 30, 1943, said Arthur L. Parker assigned his entire right, title and interest in and to said invention and in and to said Letters Patent Number 2,212,183, together with all claims and demands in law or equity for possible infringement of said patent, to The Parker Appliance Company of Cleveland, Ohio. A copy of said Assignment is hereto attached and marked "Plaintiff's Exhibit 2."

VII.

The aforesaid invention of said Letters Patent Number 2,212,183 is of great utility and value and a large number of Tube Couplings, embodying the invention of said Letters Patent, have been manufactured and sold by Plaintiff, and licensees of the Plaintiff; and said invention is of great benefit and advantage to the public; and subsequent to the issue of said Letters Patent manufacturers of Tube Couplings have acknowledged and acquiesced in said Letter Patent.

VIII.

Under date of October 16, 1947, licenses were granted by Plaintiff to the Pacific Screw Products Corporation of Southgate, California, and The Deutsch Company of Los Angeles, California, under said Letters Patent Number 2,212,183.

IX.

During World War II millions of said Tube Couplings, embodying the invention of said Letters Patent Number 2,212,183, were used by the Armed Forces of the United States and Plaintiff made the invention of said Letters Patent available to the United States free of any royalty or any claim.

X.

Defendant, Irvin W. Masters, Inc., has had full knowledge of said Letters Patent Number 2,212,183 and its infringement of said Letters Patent and the Plaintiff has given written notice of said infringement to Defendant.

XI.

Defendant, since the issue of said Letters Patent and within six years prior to the filing of this complaint unlawfully and without license has infringed said Letters Patent and Plaintiff's rights thereunder by making, using, selling, and offering to sell Tube Couplings, embodying the invention of said Letters Patent, and Defendant has caused and is causing others to infringe said Letters Patent by using Tube Couplings of its manufacture; and by so infringing said Letters Patent, Defendant has realized and received gains and profits which otherwise would have been received by Plaintiff.

XII.

Defendant is continuing and threatens to con-

tinue the infringing acts herein complained of and by reason of said infringement and continued threats of infringement, Plaintiff has been greatly damaged and the injury is irreparable and for such injury and damage Plaintiff has no adequate remedy at law.

Wherefore, Plaintiff prays:

1. That a decree be signed and entered by this Honorable Court holding, declaring and adjudging that Arthur L. Parker is the true, first, sole and original inventor of the invention set forth and described in said Patent Number 2,212,183 and of all material and substantial parts thereof; and that the entire right, title and interest in and to the invention of said Letters Patent Number 2,212,183 is vested in the Plaintiff, The Parker Appliance Company, and that Defendant has infringed upon the claims thereof.

2. That this Honorable Court award a permanent injunction and a preliminary injunction during the pendency of this suit restraining and enjoining the Defendant, its officers, agents, attorneys, servants, employees and all others acting by and under its direction and authority, its successors or assigns from manufacturing or causing to be manufactured, from using or causing to be used, from selling or causing to be sold Tube Couplings made in accordance with and embodying the invention of said Parker Patent Number 2,212,183 and from infringing upon or violating the invention of said Letters Patent in any way whatsoever.

3. That an accounting be awarded to Plaintiff

of Defendant's profits, gains and advantages and the damages sustained by Plaintiff because of Defendant's infringement upon said Letters Patent.

4. That Defendant be required to pay the costs of this suit.

5. That Plaintiff have such other and further relief as is just.

THE PARKER APPLIANCE
COMPANY,

By /s/ C. J. WAGNER, JR.

Vice-President.

/s/ LEONARD S. LYON,

/s/ WILL FREEMAN,

Of Counsel for Plaintiff.

State of Ohio,

County of Cuyahoga—ss.

C. H. Wagner, Jr., being duly sworn, deposes and says that he is Vice-President of The Parker Appliance Company, Plaintiff in the foregoing complaint; that he has read the said complaint and that the facts therein stated are true of his own knowledge, except as to the facts which may be stated on information and belief and as to those facts he believes them to be true; and that the reason why this verification is not made by said The Parker Appliance Company personally, is that said

The Parker Appliance Company is a corporation,
of which affiant is a duly qualified officer.

/s/ C. J. WAGNER, JR.

Subscribed and sworn to before me, a Notary
Public in and for said County and State, this 23rd
day of December, 1947.

[Seal] HELEN TUSIN,
Notary Public.

My Commission expires Feb. 25, 1948.

PLAINTIFF'S EXHIBIT No. 1

Patent No. 2,212,183—A. L. Parker

[See Page **1323** Volume IV—Book of Exhibits.]

PLAINTIFF'S EXHIBIT No. 2

Assignment

[See Page **1327** Volume IV—Book of Exhibits.]

[Endorsed]: Filed Dec. 29, 1947.

[Title of District Court and Cause.]

Civil Action No. 7874-B

ANSWER AND COUNTERCLAIM

Defendant, Irvin W. Masters, Inc., for its answer to the Complaint of Plaintiff, The Parker Appliance Company, avers as follows:

1.

Defendant is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in Paragraph I of the Complaint and therefore denies them.

2.

Defendant admits the allegations contained in Paragraph II of the Complaint.

3.

Defendant admits that this suit arises under the patent laws of the United States predicated upon Patent No. 2,212,183 but denies right of the Plaintiff to an injunction, an accounting of profits and an award of damages.

4.

Defendant denies the allegations of Paragraph IV of the Complaint, except the allegation that application for said Letters Patent were filed.

5.

Defendant admits the allegations of Paragraph V of the Complaint.

6.

Defendant admits the allegations of Paragraph VI of the Complaint.

7.

Defendant is without knowledge and information sufficient to form a belief as to the truth of the allegations contained in Paragraph VII and therefore denies each and every allegation contained therein.

8.

Defendant is without knowledge and information sufficient to form a belief as to the truth of allegations contained in Paragraph VIII of the Complaint and therefore denies said allegations and leaves the Plaintiff to its proofs.

9.

Defendant denies the allegations of Paragraph IX of the Complaint.

10.

Defendant denies the allegation of Paragraph X of the Complaint except that it acknowledges receipt of written notice of infringement.

11.

Defendant denies each and every allegation contained in Paragraph XI of the Complaint.

12.

Defendant denies each and every allegation of Paragraph XII of the Complaint.

As a Further and Affirmative Defense to Said Complaint Defendant Avers:

13.

That on information and belief that said patent No. 2,212,183 is invalid and void for the reason that the alleged invention thereof attempted to be patented therein, and every material and substantial part thereof had long prior to the alleged invention or discovery thereof by Arthur L. Parker or more than two years prior to the filing of the application for said patent in suit, been patented, described and contained in patents numbered and dated as follows:

W. N. Abbott	46,603	2/28/1865
G. H. Buzzell	177,686	5/23/1876
H. Guyer	182,435	9/19/1876
H. Guyer	196,084	10/16/1877
R. McConnell	290,446	12/18/1883
F. George	326,425	9/15/1885
I. B. Potts	406,060	7/ 2/1889
J. Anderson	535,236	3/ 5/1895
L. F. Jordan	654,735	7/31/1900
W. R. Park	739,707	9/22/1903
J. J. Dossert	772,136	10/11/1904
F. W. Reed	964,315	7/12/1910
S. L. Brown	1,058,542	4/ 8/1913
A. W. Bachmann	1,352,342	9/ 7/1920
J. Benzion	1,680,080	8/ 7/1928
E. E. Hewitt	1,820,020	8/25/1931
A. L. Parker	1,893,442	1/ 3/1933
A. L. Parker	1,977,241	10/16/1934

14.

That on information and belief said Arthur L. Parker was not the original, first and true inventor of the alleged inventions purported to be covered by said patent in suit No. 2,212,183 or of any material or substantial part thereof but that the same were disclosed prior to the alleged invention thereof or more than two years prior to the filing of the application for said patent in suit by said Arthur L. Parker in printed publications and among others in the specifications and drawings of said patents recited in paragraph 13 hereof and also in the following printed publication:

Pipes and Tubes

Their Construction and Jointing

by Philip R. Bjorling

London

Whittaker and Co.

White Hart Street, Paternoster Square

1902

Library of Congress No. TS 280 B 6

15.

That on information and belief Arthur L. Parker was not the original or first inventor or discoverer of any material or substantial part of the things included in said patent and that the same involved merely the exercise of mechanical skill and judgment in view of common knowledge and practice

in the art long prior to Arthur L. Parker's alleged inventions or more than two years prior to his application for said patent in suit.

16.

That, on information and belief, said patent in suit No. 2,212,183 is invalid and void for the reason that the alleged invention thereof and all of material and substantial parts thereof were invented by others, known to others, used by others or were in public use or on sale in the United States by persons or corporations, and employees and officers thereof prior to the alleged inventions by said Arthur L. Parker or more than two years prior to the filing of applications for said United States patent in suit No. 2,212,183, including, among others:

The Parker Appliance Company,

Cleveland, Ohio.

Irvin W. Masters,

Los Angeles, California.

17.

That, on information and belief, in view of the knowledge and practice of the art at and long prior to the dates of filing of applications for said patent in suit No. 2,212,183 there was required no invention whatsoever but only the ordinary skill of the art to which said alleged invention appertains and that said patent is consequently invalid and void.

18.

That, on information and belief, said patent in suit No. 2,212,183 does not describe the alleged invention as required by law in such full, clear, and exact terms as to enable any persons skilled in the art or science to which they appertain to make, employ, or use the same and does not point out and distinctly claim the parts or improvements claimed as the patentee's alleged invention as required by law and is therefore invalid.

19.

That, on information and belief, the disclosure of said patent No. 2,212,183 is inaccurate, misdescriptive and erroneous and was written to intentionally confuse and deceive the examiner and to secure the issue of a patent which is not truly portrayed in the description as required by law and the patent is therefore invalid.

20.

That Defendant has been diligent in ascertaining and setting forth herein instances of prior knowledge, invention use, publication and patenting of the alleged invention of patent in suit No. 2,212,183 and believing many further instances to exist Defendant prays leave to add the same by amendment or otherwise when ascertained.

Counterclaim of Defendant for Declaratory Relief

For its counterclaim for declaratory relief Defendant alleges:

21.

That this Court has jurisdiction of this counterclaim for the reason that the counterclaim is brought under a statute of the United States in such case made and provided to wit: the Federal Declaratory Judgment Act, Section 274D of the United States Judicial Code (Title 28, United States Code, Section 400) for a final judgment determining the rights and other legal relations of the parties and that this is an actual controversy between the parties arising in the Courts of the United States and because the controversy is one arising under the patent laws of the United States.

22.

That Plaintiff has been and now is asserting said patent in suit No. 2,212,183 against the Defendant and against Defendant's customers and Plaintiff further has alleged that it is entitled to an accounting by Defendant for the use and sale of couplings made in accordance with said patent and to an injunction against the further use and sale thereof in the United States as set forth in the Complaint herein and that Plaintiff asserts ownership in said patent in suit No. 2,212,183 and Defendant has not at any time or place infringed said patent in suit and is not now infringing the same, that said patent in suit is in fact wholly invalid and void and wholly invalid and void if alleged or construed to cover any couplings made, used or sold by the Defendant in support of which allegations Defendant repeats the allegations of Paragraphs 13 to 20, in-

clusive, of its Answer, but that nevertheless the Plaintiff has now charged this Defendant with alleged infringement of said Letters Patent No. 2,212,183 and has commenced this action for such alleged infringement, wherefore an actual controversy exists between the Defendant and the Plaintiff cognizable by this Court under the Federal Declaratory Act.

23.

That, upon information and belief, the following patents were duly issued to Arthur L. Parker:

Patent No. 1,893,442 for a Tube Coupling, issued to Arthur L. Parker January 3, 1933.

Patent No. 1,977,240 for a Tube Coupling, issued to Arthur L. Parker October 16, 1934.

Patent No. 2,212,183 for a Tube Coupling, issued to Arthur L. Parker August 20, 1940.

24.

That, upon information and belief the patents identified in Paragraph 23 have been assigned to the Plaintiff herein by an assignment executed December 23, 1943, and recorded in the Patent Office in Liber B-198, pages 4 and 5, as evidenced by a copy of said assignment on file in this case as Plaintiff's Exhibit 2.

25.

That each of said patents identified in Paragraph 23 hereof relate to and describe a tube coupling for coupling flared tubing and in each case describe and claim a coupling having three essential parts,

namely, a male part or body, a female part or nut, and a sleeve, said sleeve being identified in the patents as one section of the female part.

26.

That claims in each of the patents identified in Paragraph 23 hereof define a tube coupling including a body, a nut and a sleeve for coupling flared tubing, that Defendant is the manufacturer of a tube coupling for use on flared tubing consisting of a body, a nut and a sleeve and believes said tube coupling identified herein to be the coupling alleged by Plaintiff to infringe patent in suit No. 2,212,183.

27.

That, upon information and belief, Plaintiff, by its agents, officers, employees and other persons responsible for its actions has repeatedly and on many occasions openly and avowedly accused the Defendant of infringing each and every one of patents Nos. 1,893,442, 1,977,240 and 2,212,183 and all of the claims thereof.

28.

That, upon information and belief, Plaintiff, by its agents, officers, employees and other persons responsible for its actions has repeatedly and on many occasions openly accused Defendant's customers throughout the trade of infringing said patents Nos. 1,893,442, 1,977,240 and 2,212,183 because of use by said customers of couplings supplied by the Defendant.

29.

That Plaintiff, by its agents, officers, employees or other persons responsible for its actions specifically charged Defendant with infringement of each and all of patents Nos. 1,893,442, 1,977,240 and 2,212,183 to wit, on the 13th day of October, 1947, in the city of Los Angeles, California, and offered to withdraw charges of infringement of said patents Nos. 1,893,442, 1,977,240 and 2,212,183 and to refrain from suit thereon on condition that Defendant obligate itself upon a license contract for each and all of said patents Nos. 1,893,442, 1,977,240 and 2,212,183.

30.

That patent in suit No. 2,212,183 makes express reference to patents Nos. 1,893,442 and 1,977,240 in the first paragraph of said patent in suit and elsewhere and describes said patent in suit as only an improvement on said patents Nos. 1,893,442 and 1,977,240 and that said patents Nos. 1,893,442 and 1,977,240 being prior in date of application and date of issue contain claims which dominate and read upon the structure of said patent No. 2,212,183 in issue and are a perpetual threat against defendant's manufacture of three-piece couplings comprising a body, a nut and a sleeve to the same extent as patent No. 2,212,183 in suit.

31.

That, upon information and belief, Defendant is unable to determine the legal status of said patents

and whether or not by its manufacture, use and sale of a coupling comprising essentially a body, a nut and a sleeve it may be liable for infringement of any or all of said patents Nos. 1,893,442, 1,977,240 and 2,212,183, or that having been absolved of all charges with respect to patent in suit No. 2,212,183 it may still be liable for charges of infringement of either or both of patents Nos. 1,893,442 and 1,977,240; wherefore unless judgment is rendered with respect to validity and infringement of all of said patents Nos. 1,893,442, 1,977,240 and 2,212,183 in this action, Defendant will be faced with the possibility of numerous, frequent and multiple suits over an extended period of time which, if the issue respecting all said patents be tried at this time, could be disposed of in a single action.

32.

That, upon information and belief, all of said patents Nos. 1,893,442, 1,977,240 and 2,212,183 are invalid and void and of no force and effect for the reasons that the subject matter of all of said patents has been published in prior patents, prior publications and has been made the subject matter of prior public use in each and every case more than two years prior to the date of application of each and all of said patents, that prior publication and use applicable against patent in issue is equally applicable against said patents Nos. 1,893,442 and 1,977,240, and in support therefore Defendant repeats the allegations of Paragraphs 13 through 20, inclusive, of the Answer herein as being applicable

to patent No. 1,893,442 and 1,977,240 to the same extent to which said allegations are applicable against patent No. 2,212,183 in suit, which Paragraphs 13 to 20, inclusive, are hereby incorporated by reference into this counterclaim and made a part thereof.

33.

That, upon information and belief, no coupling manufactured, used or sold by Defendant infringes any of said patents Nos. 1,893,442, 1,977,240 and 2,212,183 or any claims thereof and because of said non-infringement Plaintiff has no right to make charges of infringement against Defendant, its customers, or any other persons using couplings supplied by Defendant.

34.

That by reason of Plaintiff's acts in asserting claims under said patents Nos. 1,893,442, 1,977,240 and 2,212,183 Defendant has been greatly damaged in its business, its trade relations and its reputation to an extent which cannot at this time be readily ascertained.

Wherefore Defendant prays:

With Respect to the Answer

1. That the patent in suit be declared invalid.
2. That the patent in suit be declared not infringed.
3. That the Complaint be dismissed with respect to the Defendant with prejudice.

4. That the Defendant be awarded attorneys fees.

5. That the Defendant be awarded damages, costs and such other and further relief as may be required; and

With Respect to the Counterclaim

6. That Plaintiff be required to reply to the Counterclaim.

7. That this Honorable Court declare, adjudge and decree that said patents Nos. 1,893,442, 1,977,240 and 2,212,183, and each of them, have not been infringed by the Defendant nor by any of its customers or others in the trade using couplings supplied by the Defendant.

8. That judgment be signed and entered by this Honorable Court declaring and adjudging that said patents Nos. 1,893,442, 1,977,240 and 2,212,183 and each of them, are wholly invalid and void as to each and all of the claims thereof, and dismissing the Complaint herein with costs of the Defendant to be taxed against the Plaintiff and that such interlocutory relief be granted to the Defendant by a stay, preliminary injunction or otherwise as to this Honorable Court shall seem meet and proper.

9. That this Honorable Court shall declare, adjudge and decree that each of said patents Nos. 1,893,442, 1,977,240 and 2,212,183 is wholly invalid and void as to each and every claim thereof.

10. That this Honorable Court, declare, adjudge and decree that it is the right of the Defendant to continue the manufacture, use and sale of couplings

embodying constructions the same as and similar to those herein complained of without actions, threats, molestation or interference of any character whatsoever by or from the Plaintiff or its assigns or anyone claiming through or under it on account of patents Nos. 1,893,442, 1,977,240 and 2,212,183, or any of them or on any alleged invention thereof.

11. That this Honorable Court issue a perpetual injunction and a preliminary injunction during the pendency of this action enjoining and restraining the Plaintiff, its agents, officers, associates, confederates and assigns forever from further asserting, contending, claiming or representing, orally, in writing, or otherwise, that said patents Nos. 1,893,442, 1,977,240 and 2,212,183, or any of them, or any of the claims thereof or any purport of invention thereof, have been or are now being infringed by the Defendant, its customers or others using couplings supplied by the Defendant.

12. That this Honorable Court issue a perpetual injunction and a preliminary injunction during the pendency of this action enjoining and restraining the Plaintiff, its agents, officers, associates, confederates and assigns forever from threatening to sue or suing for alleged infringements thereof Defendant or any customer of the Defendant or other person using couplings supplied by the Defendant and from in any manner unfairly or improperly interfering with the Defendant's continued manufacture, use and sale of couplings or the free and undisturbed conduct of the Defendant's business.

13. That damages be awarded Defendant payable by Plaintiff for all acts charged in this counterclaim.

14. That damages in treble the amount be awarded to Defendant payable by Plaintiff for wilfully and wantonly and flagrantly asserting invalid patents against Defendant's customers on a widespread scale throughout the industry and damaging Defendant in its business and trade relations to a great extent which at this time is not readily ascertainable.

15. That Defendant be awarded its attorney's fees accruing by reason of this counterclaim.

16. That the costs of this action predicated upon this counterclaim be taxed against the Plaintiff in favor of the Defendant and that Defendant have judgment and execution therefor against the Plaintiff.

17. For such other and further relief as to this Honorable Court may seem right and proper.

HUEBNER, MALTBY &
BEEHLER,

VERNON D. BEEHLER, and
HERBERT A. HUEBNER,

By /s/ VERNON D. BEEHLER,
Attorneys for Defendant.

GLENN A. LANE,
Of Counsel.

[Endorsed]: Filed February 17, 1948.

[Title of District Court and Cause.]

Civil Action No. 7874-B

REPLY

Plaintiff, The Parker Appliance Company, for its reply to the Counterclaim of the Defendant, Irvin W. Masters, Inc., avers as follows:

1.

Plaintiff, as to paragraph 21 of Defendant's Counterclaim, admits that this Court has jurisdiction of actual controversies, under Title 28, United States Code, Section 400, arising under the patent laws of the United States; and admits that there is a controversy with respect to Patent No. 2,212,183, which patent is in suit by virtue of the Plaintiff's Complaint in this cause; and Plaintiff denies that any other actual controversy exists between Defendant and Plaintiff cognizable by this Court.

2.

Plaintiff, as to paragraph 22 of Defendant's Counterclaim, admits that it has asserted, and now asserts, its patent No. 2,212,183 against the Defendant; admits that it has brought this suit charging Defendant with infringement of its patent No. 2,212,183; and Plaintiff denies that it has asserted said patent No. 2,212,183 against Defendant's customers, and denies each and every other allegation of said paragraph.

3.

Plaintiff, as to paragraph 23 of Defendant's Counterclaim, admits the issue of Parker patent No. 1,893,442, Parker patent No. 1,977,240 and Parker patent No. 2,212,183 on the respective dates set forth in said paragraph.

4.

Plaintiff, as to paragraph 24 of Defendant's Counterclaim, admits that the patents, identified in paragraph 23 of Defendant's Counterclaim and referred to in paragraph 3 hereof, have been assigned to Plaintiff as set forth in Plaintiff's Exhibit 2.

5.

Plaintiff, as to paragraph 25 of Defendant's Counterclaim, admits that the three above-referred to Parker patents illustrate and relate to a three-piece tube coupling, except, however, that each patent differs from the other as to the three-piece tube coupling and differ as set forth in the claims of each patent; and, as to all of the other allegations contained in said paragraph, Plaintiff denies the same.

6.

Plaintiff, as to paragraph 26 of Defendant's Counterclaim, admits that the claims of each of the above identified Parker patents are directed to a particular construction and arrangement, including a body, a nut and a sleeve for coupling flared tubing; and admits that Defendant's tube coupling charged to infringe consists of a particular construction and

arrangement, including a body, a nut and a sleeve for coupling flared tubing; and avers that said Defendant's body, nut and sleeve embody the construction and arrangement of such parts with respect to each other to obtain the complete benefits and advantages embodied in each of the three claims of patent No. 2,212,183; and, as to all other allegations in said paragraph, Plaintiff denies the same.

7.

Plaintiff, as to paragraph 27 of Defendant's Counterclaim, denies the allegations therein contained with respect to patents Nos. 1,893,442 and 1,977,240; and admits notice of infringement of Plaintiff's patent in suit No. 2,212,183 by written document dated July 19, 1946, a copy of which is attached hereto, by reference made a part hereof, marked Plaintiff's Exhibit 3; and avers that Defendant acknowledged said notice, Plaintiff's Exhibit 3, by written document dated July 22, 1946, a copy of which is hereto attached, by reference made a part hereof, marked Plaintiff's Exhibit 4.

8.

Plaintiff, as to paragraph 28 of Defendant's Counterclaim, denies each and every allegation therein contained.

9.

Plaintiff, as to paragraph 29 of Defendant's Counterclaim, denies that on the 13th day of October, 1947, Defendant was charged with infringement of

patents Nos. 1,893,442, 1,977,240 and 2,212,183; and denies that it offered to withdraw the charge of infringement and refrain from suit on condition that Defendant take a license under said three patents; and denies that suit was threatened at that time, or at any other time; and Plaintiff avers that a conference was had in the City of Los Angeles with the President of this Defendant and its attorney on October 15, 1947, looking toward a settlement of differences in accordance with the written document dated July 19, 1946, Plaintiff's Exhibit 3.

10.

Plaintiff, as to paragraph 30 of Defendant's Counterclaim, admits that the patent in suit No. 2,212,183 makes reference to patents Nos. 1,893,442 and 1,977,240 as exemplifying that for which the patent in suit is an improvement on; and denies that the reference to patents Nos. 1,893,442 and 1,977,240 in the patent in suit constitutes, directly or indirectly, any threat against this Defendant with respect to said patents Nos. 1,893,442 and 1,977,240; and Plaintiff avers that reference to patents Nos. 1,893,442 and 1,977,240 in the patent suit is notice to the world and to this Defendant that the claims of the patent in suit No. 2,212,183 specifically differ from and cover an improvement over the two patents therein referred to.

11.

Plaintiff, as to paragraph 31 of Defendant's Counterclaim, denies that it has charged Defendant with infringement of any claims of patent No. 1,893,442 or patent No. 1,977,240, and denies that there is any threat or likelihood of a multiplicity of suits;

Plaintiff avers that it has never asserted said patents Nos. 1,893,442 and 1,977,240 against Defendant; and Plaintiff denies that any controversy exists in fact within the meaning of Title 28, United States Code, Section 400 with respect to said patents Nos. 1,893,442 and 1,977,240, and, as to all other allegations contained in said paragraph, Plaintiff denies the same.

12.

Plaintiff, as to paragraph 32 of Defendant's Counterclaim, denies that patents Nos. 1,893,442, 1,977,240 and 2,212,183 are invalid for any of the reasons set forth in paragraphs 13 to 20, inclusive, of Defendant's Answer, and denies specifically that there is any controversy with respect to patent Nos. 1,893,442 and 1,977,240; and Plaintiff avers that any controversy with respect to patent No. 2,212,183 between Plaintiff and Defendant is already in issue by the Complaint on file and Defendant's Answer thereto.

13.

Plaintiff, as to paragraph 33 of Defendant's Counterclaim, denies the allegations with respect to its patent No. 2,212,183 and avers that, as to patents Nos. 1,893,442 and 1,977,240, there is no controversy in fact between Plaintiff and Defendant.

14.

Plaintiff, as to paragraph 34 of Defendant's Counterclaim, denies that it has asserted patents Nos. 1,893,442 and 1,977,240 against Defendant and therefore, denies that Defendant has been damaged in any manner; and Plaintiff avers that its assertion against Defendant of its patent No. 2,212,183 is as

alleged in its Complaint; and Plaintiff denies any damage to Defendant because of Plaintiff asserting its patent No. 2,212,183 and the bringing of this suit thereunder.

Wherefore Plaintiff Prays:

With Respect to the Counterclaim

1. That as to patents Nos. 1,893,442 and 1,977,240, it be dismissed.

2. That this Court hold that there is no controversy in fact as between Plaintiff and Defendant involving said patents Nos. 1,893,442 and 1,977,240.

3. That Defendant is not entitled to any of the relief requested.

4. That this Court, with respect to patent No. 2,212,183 decree that said patent is valid and has been infringed by Defendant in its manufacture and sale of tube couplings, as set forth in Plaintiff's Complaint on file.

5. That Plaintiff be awarded attorney's fees.

6. That Plaintiff have such further relief as to this Honorable Court may seem proper and just.

LYON & LYON,

LEONARD S. LYON,

CHARLES G. LYON,

WILL FREEMAN,

By /s/ CHARLES G. LYON,

Attorneys for Plaintiff.

PLAINTIFF'S EXHIBIT No. 3

(Copy)

July 19, 1946

Irvin W. Masters, Inc.
3035 Andrita Street
Los Angeles 41, California

Mr. Irvin W. Masters

Gentlemen:

Our Company, as you know, is the owner of Parker Patent No. 2,212,183, as well as other patents having to do with flared fittings. We have examined flared fittings manufactured by your company and in the opinion of our patent counsel they are an infringement of our Patent 2,212,183.

You perhaps know that during the national emergency and war period The Parker Appliance Company liberally granted letters of permission to airplane manufacturers for the use of Parker-owned or controlled patents. The emergency period having terminated, our Company withdrew such letters of permission. We know that you will want to check into the situation and determine for yourself the question of infringement.

Our Company is not adverse to considering granting licenses to reputable manufacturers who make good products.

This letter is not written in the spirit of a threat of infringement but in the nature of an invitation for you to consider the possibility of a license under our patents where such patents do cover the flared fittings made by your company.

We shall be glad to hear from you at your convenience.

Very truly yours,

THE PARKER APPLIANCE
COMPANY,

Vice President.

C. H. Wagner, Jr/ht

PLAINTIFF'S EXHIBIT No. 4

(Copy)

Irvin W. Masters, Inc.

3035 Andrita Street

Los Angeles 41, California

July 22, 1946

M-33295

The Parker Appliance Company

17325 Euclid Avenue

Cleveland 12, Ohio.

Attention: Mr. C. H. Wagner, Jr.

Gentlemen:

We have your letter of July 19, 1946, calling attention to your Patent No. 2,212,183 and we note that it is the opinion of your patent counsel that we are infringing this patent and other flared tube fitting patents which you hold.

We are writing to ask that you advise specifically what other patents you consider we are infringing and if you care to state, wherein you think we are infringing.

In general we have, after many years' experience with this entire fitting situation become quite thoroughly convinced that all of these fitting patents are just about as thin as soup made out of the shadow of a chicken starved to death. However, we are willing to approach the question in the spirit indicated in the next to last paragraph of your letter, without antagonism and in a spirit of cooperation.

The writer was quite well acquainted with the late Mr. A. L. Parker and held him personally, and the work he did in very high esteem. Regardless of the merit or lack of merit in the patent situation I think that Mr. Parker and the Parker Appliance Company did much in this particular field for which recognition must be given.

Kindly advise us more particularly in reference to the other patents and points involved and we will give it our consideration.

Yours very truly,

/s/ IRVIN W. MASTERS,
President.

[Endorsed]: Filed March 16, 1948.

In the District Court of the United States, Southern
District of California, Central Division

Civil Action No. 8023-W

THE PARKER APPLIANCE COMPANY,

Plaintiff,

vs.

JOSEPH C. COLLINS, doing business under firm
name and style of Collins Engineering Co.,
Hollywood, California,

Defendant.

COMPLAINT FOR INFRINGEMENT OF
UNITED STATES LETTERS PATENT No.
2,212,183

To: The Honorable Judges, of the United States
District Court, in and for the Southern Dis-
trict of California, Central Division, Ninth
Circuit.

Plaintiff, The Parker Appliance Company, of
Cleveland, Ohio, for its complaint against Joseph
C. Collins, doing business under firm name and
style of Collins Engineering Co., of Hollywood,
California, Defendant, alleges:

1.

Plaintiff, The Parker Appliance Company, is a
corporation organized under and existing by virtue
of the laws of the State of Ohio and has its prin-

incipal office and place of business in the City of Cleveland, in the County of Cuyahoga and State of Ohio, and has a regular and established place of business in the City of Los Angeles, in the County of Los Angeles and State of California.

2.

Defendant, Joseph C. Collins, is a resident of the State of California, and does business under the firm name and style, Collins Engineering Co., and has a place of business in the City of Hollywood, in the County of Los Angeles, and State of California, within the Southern District of California, Central Division.

3.

This is a suit arising under the Patent Laws of the United States for infringement of United States Letters Patent issued to Arthur L. Parker, of Cleveland, Ohio, No. 2,212,183, dated August 20, 1940, upon an application filed March 2, 1938, and Plaintiff seeks the equitable remedy of an injunction and asks for an accounting of profits and an award for damages.

4.

On March 2, 1938, Arthur L. Parker, being the first, original and sole inventor of Certain Improvements in Tubing Coupling, filed in the United States Patent Office, his application for Letters Patent thereon, Serial No. 193,569.

5.

On August 20, 1940, United States Letters Patent No. 2,212,183 for said invention were duly issued to said Arthur L. Parker. A copy of said Parker Patent No. 2,212,183 is attached hereto and marked "Plaintiff's Exhibit 1."

6.

By written instrument, dated December 28, 1943, and duly recorded in Liber B-198, page 4, of the Transfers of Patents of the United States Patent Office, on December 30, 1943, said Arthur L. Parker assigned his entire right, title and interest in and to said invention and in and to said Letters Patent No. 2,212,183, together with all claims and demands in law or equity for possible infringement of said patent, to The Parker Appliance Company of Cleveland, Ohio. A copy of said Assignment is hereto attached and marked "Plaintiff's Exhibit 2."

7.

The aforesaid invention of said Letters Patent No. 2,212,183 is of great utility and value and a large number of Tube Couplings, embodying the invention of said Letters Patent, have been manufactured and sold by Plaintiff, and licensees of the Plaintiff; and said invention is of great benefit and advantage to the public; and subsequent to the issue of said Letters Patent manufacturers of Tube Couplings have acknowledged and acquiesced in said Letters Patent.

8.

Under date of October 16, 1947, licenses were granted by Plaintiff to the Pacific Screw Products Corporation, of Southgate, California, and the Deutsch Company, of Los Angeles, California, under said Letters Patent No. 2,212,183.

9.

During World War II millions of said Tube Couplings, embodying the invention of said Letters Patent No. 2,212,183, were used by the Armed Forces of the United States, and Plaintiff made the invention of said Letters Patent available to the United States free of any royalty or any claim.

10.

Defendant, Joseph C. Collins, doing business under the firm name and style, Collins Engineering Co., has had full knowledge of said Letters Patent No. 2,212,183 and his infringement of said Letters Patent, and the Plaintiff has given written notice of said infringement to Defendant.

11.

Defendant, since the issue of said letters Patent, and within six years prior to the filing of this complaint, unlawfully and without license has infringed said Letters Patent and Plaintiff's rights thereunder by making, using, selling, and offering to sell Tube Couplings, embodying the invention of said Letters Patent, and Defendant has caused and is

causing others to infringe said Letters Patent by using Tube Couplings of its manufacture; and by so infringing said Letters Patent, Defendant has realized and received gains and profits which otherwise would have been received by Plaintiff.

12.

Defendant is continuing and threatens to continue the infringing acts herein complained of and by reason of said infringement and continued threats of infringement, Plaintiff has been greatly damaged and the injury is irreparable and for such injury and damage Plaintiff has no adequate remedy at law.

Wherefore, Plaintiff prays:

1. That a decree be signed and entered by this Honorable Court holding, declaring and adjudging that Arthur L. Parker is the true, first, sole and original inventor of the invention set forth and described in said Letters Patent No. 2,212,183 and of all material and substantial parts thereof; and that the entire right, title and interest in and to the invention of said Letters Patent No. 2,212,183 is vested in the Plaintiff, The Parker Appliance Company, and that Defendant has infringed upon the claims thereof.

2. That this Honorable Court award a permanent injunction and a preliminary injunction during the pendency of this suit restraining and enjoining the Defendants, his agents, attorneys, servants, employees and all others acting by and under

his direction and authority, from manufacturing or causing to be manufactured, from using or causing to be used, from selling or causing to be sold Tube Couplings made in accordance with and embodying the invention of said Parker Patent No. 2,212,183, and from infringing upon or violating the invention of said Letters Patent in any way whatsoever.

3. That an accounting be awarded to Plaintiff of Defendant's profits, gains and advantages and the damages sustained by Plaintiff because of Defendant's infringement upon said Letters Patent.

4. That Defendant be required to pay the costs of this suit.

5. That Plaintiff have such other and further relief as is just.

THE PARKER APPLIANCE
COMPANY

By /s/ C. H. WAGNER, JR.,
Vice-President.

/s/ LEONARD S. LYON,

/s/ CHARLES G. LYON,

/s/ WILL FREEMAN,

Of Counsel for Plaintiff.

State of Ohio,
County of Cuyahoga—ss.

C. H. Wagner, Jr., being duly sworn, deposes and says that he is Vice-President of The Parker Appliance Company, Plaintiff in the foregoing Complaint; that he has read the said Complaint and that the facts therein stated are true of his own knowledge, except as to the facts which may be stated on information and belief and as to those facts he believes them to be true; and that the reason why this verification is not made by said The Parker Appliance Company personally, is that said The Parker Appliance Company is a corporation, of which affiant is a duly qualified officer.

/s/ C. H. WAGNER, JR.

Subscribed and sworn to before me, a Notary Public in and for said County and State, this 25th day of February, 1948.

/s/ HELEN A. HORNYAK,
Notary Public.

My Commission Expires Jan. 15, 1951.

PLAINTIFF'S EXHIBIT No. 1

Patent No. 2,212,183—A. L. Parker

[See page ¹³²³ ~~III~~ ^{IV} Volume ~~III~~, Book of Exhibits.]

PLAINTIFF'S EXHIBIT No. 2

Assignment

[See page ¹³²⁷ ~~III~~ ^{IV} Volume ~~III~~, Book of Exhibits.]

[Endorsed]: Filed Mar. 4, 1948.

[Title of District Court and Cause.]

Civil Action No. 8023-W

ANSWER

Defendant, Joseph C. Collins, for his answer to the Complaint of Plaintiff, The Parker Appliance Company, avers as follows:

1.

Defendant is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in Paragraph 1 of the Complaint and therefore denies them.

2.

Defendant admits the allegations contained in Paragraph 2 of the Complaint.

3.

Defendant admits that this suit arises under the patent laws of the United States predicated upon Patent No. 2,212,183 but denies right of the Plaintiff to an injunction, an accounting of profits and award of damages.

4.

Defendant denies the allegations of Paragraph 4 of the Complaint, except the allegation that application for said Letters Patent were filed.

5.

Defendant admits issue of United States Letters Patent No. 2,212,183 on August 20, 1940, to Arthur L. Parker but denies that said issue was lawful.

6.

Defendant admits the allegations of Paragraph 6 of the Complaint.

7.

Defendant is without knowledge and information sufficient to form a belief as to the truth of allegations contained in Paragraph 7 and therefore denies each and every allegation contained therein.

8.

Defendant is without knowledge and information sufficient to form a belief as to the truth of allegations contained in Paragraph 8 of the Complaint and therefore denies said allegations and leaves the Plaintiff to its proofs.

9.

Defendant denies the allegations of Paragraph 9 of the Complaint.

10.

Defendant denies the allegations of Paragraph 10 of the Complaint except that it acknowledges receipt of wirtten notice of infringement.

11.

Defendant denies each and every allegation contained in Paragraph 11 of the Complaint.

12.

Defendant denies each and every allegation of Paragraph 12 of the Complaint.

As a Further and Affirmative Defense to Said Complaint Defendant Avers:

13.

That on information and belief said patent No. 2,212,183 is invalid and void for the reason that the alleged invention thereof attempted to be patented therein, and every material and substantial part thereof had long prior to the alleged invention or discovery thereof by Arthur L. Parker or more than two years prior to the filing of the application for said patent in suit, been patented, described and contained in patents numbered and dated as follows:

W. N. Abbott	46,603	2/28/1865
G. H. Buzzell	177,686	5/23/1876
H. Guyer	182,435	9/19/1876
H. Guyer	196,084	10/16/1877
R. McConnell	290,446	12/18/1883
F. George	326,425	9/15/1885
I. B. Potts	406,060	7/ 2/1889
J. Anderson	535,236	3/ 5/1895
L. F. Jordan	654,735	7/31/1900
W. R. Park	739,707	9/22/1903
J. J. Dossert	772,136	10/11/1904
F. W. Reed	964,315	7/12/1910
S. L. Brown	1,058,542	4/ 8/1913
A. W. Bachmann	1,352,342	9/ 7/1920
J. Benzion	1,680,080	8/ 7/1928
E. E. Hewitt	1,820,020	8/25/1931
A. L. Parker	1,893,442	1/ 3/1933
A. L. Parker	1,977,241	10/16/1934

14.

That on information and belief said Arthur L. Parker was not the original, first and true inventor of the alleged inventions purported to be covered by said patent in suit no. 2,212,183 or of any material or substantial part thereof but that the same were disclosed prior to the alleged invention thereof or more than two years prior to the filing of the application for said patent in suit by said Arthur L. Parker in printed publications and among others in the specifications and drawings of said patents recited in Paragraph 13 hereof and also in the following printed publication:

Pipes and Tubes

Their Construction and Jointing

by Philip R. Bjorling

London

Whittaker and Co.

White Hart Street, Paternoster Square

1902

Library of Congress No. TS 280 B 6

15.

That on information and belief Arthur L. Parker was not the original or first inventor or discoverer of any material or substantial part of the things included in said patent and that the same involved merely the exercise of mechanical skill and judg-

ment in view of common knowledge and practice in the art long prior to Arthur L. Parker's alleged inventions or more than two years prior to his application for said patent in suit.

16.

That, on information and belief, said patent in suit No. 2,212,183 is invalid and void for the reason that the alleged invention thereof and all of material and substantial parts thereof were invented by others, known to others, used by others or were in public use or on sale in the United States by persons or corporations, and employees and officers thereof prior to the alleged inventions by said Arthur L. Parker or more than two years prior to the filing of applications for said United States patent in suit No. 2,212,183, including, among others:

The Parker Appliance Company,

Cleveland, Ohio.

Irvin W. Masters,

Los Angeles, California.

17.

That, on information and belief, in view of the knowledge and practice of the art at and long prior to the dates of filing of application for said patent in suit No. 2,212,183, there was required no invention whatsoever, but only the ordinary skill of the art to which said alleged invention appertains and that said patent is consequently invalid and void.

18.

That, on information and belief, said patent in suit No. 2,212,183 does not describe the alleged invention as required by law in such full, clear, and exact terms as to enable any persons skilled in the art or science to which they appertain to make, employ, or use the same and does not point out and distinctly claim the parts or improvements claimed as the patentee's alleged invention as required by law and is therefore invalid.

19.

That, on information and belief, the disclosure of said patent No. 2,212,183 is inaccurate, misdescriptive and erroneous and was written to intentionally confuse and deceive the examiner and to secure the issue of a patent which is not truly portrayed in the description as required by law and the patent is therefore invalid.

20.

That Defendant has been diligent in ascertaining and setting forth herein instances of prior knowledge, invention, use, publication and patenting of the alleged invention of patent in suit No. 2,212,183, and believing many further instances to exist Defendant prays leave to add the same by amendment or otherwise when ascertained.

Counterclaim of Defendant for
Declaratory Relief

For its counterclaim for declaratory relief Defendant alleges:

21.

That this Court has jurisdiction of this counterclaim for the reason that the counterclaim is brought under a statute of the United States in such case made and provided, to wit: the Federal Declaratory Judgment Act, Section 274D of the United States Judicial Code (Title 28, United States Code, Section 400), for a final judgment determining the rights and other legal relations of the parties, and that this is an actual controversy between the parties arising in the Courts of the United States and because the controversy is one arising under the patent laws of the United States.

22.

That Plaintiff has been and now is asserting said patent No. 2,212,183 against the Defendant and against Defendant's customers and Plaintiff further has alleged that it is entitled to an accounting by Defendant for the use and sale of couplings made in accordance with said patent and to an injunction against the further use and sale thereof in the United States as set forth in the Complaint herein and that Plaintiff asserts ownership in said patent No. 2,212,183 and Defendant has not at any time or place infringed said patent No. 2,212,183 and is

not now infringing the same, that said patent No. 2,212,183 is in fact wholly invalid and void and wholly invalid and void if alleged or construed to cover any couplings made, used or sold by the Defendant in support of which allegations Defendant repeats the allegations of Paragraphs 13 to 20, inclusive, of its Answer, but that nevertheless the Plaintiff has now charged this Defendant with alleged infringement of said Letters Patent No. 2,212,183 and has commenced this action for such alleged infringement, wherefore an actual controversy exists between the Defendant and the Plaintiff cognizable by this Court under the Federal Declaratory Act.

23.

That, upon information and belief, the following patents were duly issued to Arthur L. Parker:

Patent No. 1,893,442 for a Tube Coupling, issued to Arthur L. Parker January 3, 1933.

Patent No. 1,977,240 for a Tube Coupling, issued to Arthur L. Parker October 16, 1934.

Patent No. 2,212,183 for a Tube Coupling, issued to Arthur L. Parker August 20, 1940.

24.

That, upon information and belief, the patents identified in Paragraph 23 have been assigned to the Plaintiff herein by an assignment executed December 23, 1943, and recorded in the Patent Office in Liber B-198, pages 4 and 5, as evidenced by a copy of such assignment on file in this case as Plaintiff's Exhibit 2.

25.

That each of said patents identified in Paragraph 23 hereof relate to and describe a tube coupling for coupling flared tubing and in each case describes and claim a coupling having three essential parts, namely, a male part or body, a female part or nut, and a sleeve, said sleeve being identified in the patents as one section of the female part.

26.

That claims in each of the patents identified in Paragraph 23 hereof define a tube coupling including a body, a nut and a sleeve for coupling flared tubing, that Defendant is the manufacturer of a tube coupling for use on flared tubing consisting of a body, a nut and a sleeve and believes said tube coupling identified herein to be the coupling alleged by Plaintiff to infringe patent No. 2,212,183.

27.

That, upon, information and belief, Plaintiff, by its agents, officers, employees and other persons responsible for its actions has repeatedly and on many occasions openly and avowedly accused couplings manufactured and sold by Defendant as being infringements of each and every one of patents Nos. 1,893,442, 1,977,240 and 2,212,183 and all of the claims thereof.

28.

That, upon information and belief, Plaintiff, by its agents, officers, employees and other persons re-

sponsible for its actions has repeatedly and on many occasions openly accused Defendant's customers throughout the trade of infringing said patents Nos. 1,893,442, 1,977,240 and 2,212,183 because of use by said customers of couplings supplied by the Defendant.

29.

That patent No. 2,212,183 makes express reference to patents Nos. 1,893,442 and 1,977,240 in the first paragraph of said patent No. 2,212,183 and elsewhere and describes said patent No. 2,212,183 as only an improvement on said patents Nos. 1,893,442 and 1,977,240.

30.

That patent No. 1,893,442, being prior in date of application and date of issue, contains only one claim and that said one claim may be construed to read upon the structure of said patent No. 2,212,183.

31.

That patent No. 1,977,240, being prior in date of application and date of issue, contains claims, one or both of which may be construed to read upon the structure of said patent No. 2,212,183.

32.

That patents Nos. 1,893,442 and 1,977,240 are a perpetual threat against defendant's manufacture of three-piece couplings comprising a body, a nut and a sleeve.

33.

That, upon information and belief, Defendant is unable to determine the legal status of said patents and whether or not by its manufacture, use and sale of a coupling comprising essentially a body, a nut and a sleeve it may be liable for infringement of any or all of said patents Nos. 1,893,442, 1,977,240 and 2,212,183, or that having been absolved of all charges with respect to patent in suit No. 2,212,183 it may still be liable for charges of infringement of either or both of patents Nos. 1,893,442 and 1,977,240; wherefore unless judgment is rendered with respect to validity and infringement of all of said patents Nos. 1,893,442, 1,977,240 and 2,212,183 in this action, Defendant will be faced with the possibility of numerous, frequent and multiple suits over an extended period of time which, if the issue respecting all said patents be tried at this time, could be disposed of in a single action.

34.

That, upon information and belief, all of said patents Nos. 1,893,442, 1,977,240 and 2,212,183 are invalid and void and of no force and effect for the reasons that the subject matter of all of said patents has been published in prior patents, prior publications and has been made the subject matter of prior public use in each and every case more than two years prior to the date of application of each and all of said patents, that prior publication and use applicable against patent No. 2,212,183 is

equally applicable against said patents Nos. 1,893,442 and 1,977,240, and in support therefor Defendant repeats the allegations of Paragraphs 13 through 20, inclusive, of the Answer herein as being applicable to patents Nos. 1,893,442 and 1,977,240 to the same extent to which said allegations are applicable against patent No. 2,212,183, which Paragraphs 13 to 20, inclusive, are hereby incorporated by reference into this counterclaim and made a part thereof.

35.

That, upon information and belief, no coupling manufactured, used or sold by Defendant infringes any of said patents Nos. 1,893,442, 1,977,240 and 2,212,183 or any claims thereof and because of said non-infringement Plaintiff has no right to make charges of infringement against Defendant, its customers, or any other persons using couplings supplied by Defendant.

36.

That by reason of Plaintiff's acts in asserting claims under said patents Nos. 1,893,442, 1,977,240 and 2,212,183 Defendant has been greatly damaged in its business, its trade relations and its reputation to an extent which cannot at this time be readily ascertained.

Wherefore Defendant Prays:

With Respect to the Answer

1. That the patent in suit be declared invalid.

2. That the patent in suit be declared not infringed.

3. That the Complaint be dismissed with respect to the Defendant with prejudice.

4. That the Defendant be awarded attorneys' fees.

5. That the Defendant be awarded damages, costs and such other and further relief as may be required; and

With Respect to the Counterclaim

6. That Plaintiff be required to reply to the Counterclaim.

7. That this Honorable Court declare, adjudge and decree that said patents Nos. 1,893,442, 1,977,240 and 2,212,183, and each of them, have not been infringed by the Defendant nor by any of its customers or others in the trade using couplings supplied by the Defendant.

8. That judgment be signed and entered by this Honorable Court declaring and adjudging that said patents Nos. 1,893,442, 1,977,240 and 2,212,183 and each of them, are wholly invalid and void as to each and all of the claims thereof, and dismissing the Complaint herein with costs of the Defendant to be taxed against the Plaintiff and that such interlocutory relief be granted to the Defendant by a stay, preliminary injunction or otherwise as to this Honorable Court shall seem meet and proper.

9. That this Honorable Court shall declare, adjudge and decree that each of said patents Nos. 1,893,442, 1,977,240 and 2,212,183 is wholly invalid and void as to each and every claim thereof.

10. That this Honorable Court declare, adjudge and decree that it is the right of the Defendant to continue the manufacture, use and sale of couplings embodying constructions the same as and similar to those herein complained of without actions, threats, molestation or interference of any character whatsoever by or from the Plaintiff or its assigns or anyone claiming through or under it on account of patents Nos. 1,893,442, 1,977,240 and 2,212,183, or any of them or on any alleged invention thereof.

11. That this Honorable Court issue a perpetual injunction and a preliminary injunction during the pendency of this action enjoining and restraining the Plaintiff, its agents, officers, associates, confederates and assigns forever from further asserting, contending, claiming or representing, orally, in writing, or otherwise, that said patents Nos. 1,893,442, 1,977,240 and 2,212,183, or any of them, or any of the claims thereof or any purport of invention thereof, have been or are now being infringed by the Defendant, its customers or others using couplings supplied by the Defendant.

12. That this Honorable Court issue a perpetual injunction and a preliminary injunction during the pendency of this action enjoining and restraining the Plaintiff, its agents, officers, associates, confederates and assigns forever from threatening to sue or suing for alleged infringement thereof Defendant or any customer of the Defendant or other person using couplings supplied by the Defendant and from in any manner unfairly or improperly interfering with the Defendant's continued manu-

facture, use and sale of couplings or the free and undisturbed conduct of the Defendant's business.

13. That damages be awarded Defendant payable by Plaintiff for all acts charged in this counterclaim.

14. That damages in treble the amount be awarded to Defendant payable by Plaintiff for willfully and wantonly and flagrantly asserting invalid patents against Defendant's customers on a widespread scale throughout the industry and damaging Defendant in its business and trade relations to a great extent which at this time is not readily ascertainable.

15. That Defendant be awarded its attorneys' fees accruing by reason of this counterclaim.

16. That the costs of this action predicated upon this counterclaim be taxed against the Plaintiff in favor of the Defendant and that Defendant have judgment and execution therefor against the Plaintiff.

17. For such other and further relief as to this Honorable Court may seem right and proper.

HUEBNER, MALTBY &
BEEHLER,

VERNON D. BEEHLER, and
HERBERT A. HUEBNER,

By /s/ VERNON D. BEEHLER,
Attorneys for Defendant.

[Endorsed]: Filed April 16, 1948.

[Title of District Court and Cause.]

Civil Action No. 8023-W

REPLY

Plaintiff, The Parker Appliance Company, for its reply to the Counterclaim of the Defendant, Joseph C. Collins, avers as follows:

1.

Plaintiff, as to paragraph 21 of Defendant's Counterclaim, admits that this Court has jurisdiction of actual controversies, under Title 28, United States Code, Section 400, arising under the patent laws of the United States; and admits that there is a controversy with respect to Patent No. 2,212,183, which patent is in suit by virtue of the Plaintiff's Complaint in this cause; and Plaintiff denies that any other actual controversy exists between Defendant and Plaintiff cognizable by this Court.

2.

Plaintiff, as to paragraph 22 of Defendant's Counterclaim, admits that it has asserted, and now asserts, its patent No. 2,212,183 against the Defendant; admits that it has brought this suit charging Defendant with infringement of its patent No. 2,212,183; and Plaintiff denies that it has asserted said patent No. 2,212,183 against Defendant's customers, and denies each and every other allegation of said paragraph.

3.

Plaintiff, as to paragraph 23 of Defendant's Counterclaim, admits the issue of Parker patent No. 1,893,442, Parker patent No. 1,977,240 and Parker patent No. 2,212,183 on the respective dates set forth in said paragraph.

4.

Plaintiff, as to paragraph 24 of Defendant's Counterclaim, admits that the patents, identified in paragraph 23 of Defendant's Counterclaim and referred to in paragraph 3 hereof, have been assigned to Plaintiff as set forth in Plaintiff's Exhibit 2.

5.

Plaintiff, as to paragraph 25 of Defendant's Counterclaim, admits that the three above referred to Parker patents illustrate and relate to a three-piece tube coupling, except, however, that each patent differs from the other as to the three-piece tube coupling and differ as set forth in the claims of each patent; and, as to all of the other allegations contained in said paragraph, Plaintiff denies the same.

6.

Plaintiff, as to paragraph 26 of Defendant's Counterclaim, admits that the claims of each of the above identified Parker patents are directed to a particular construction and arrangement, including a body, a nut and a sleeve for coupling flared tub-

ing; and admits that Defendant's tube coupling charged to infringe consists of a particular construction and arrangement, including a body, a nut and a sleeve for coupling flared tubing; and avers that said Defendant's body, nut and sleeve embody the construction and arrangement of such parts with respect to each other to obtain the complete benefits and advantages embodied in each of the three claims of patent No. 2,212,183; and, as to all other allegations in said paragraph, Plaintiff denies the same.

7.

Plaintiff, as to paragraph 27 of Defendant's Counterclaim, denies the allegations therein contained with respect to patents Nos. 1,893,442 and 1,977,240; and admits notice of infringement of Plaintiff's patent in suit No. 2,212,183 by written document dated January 13, 1948, a copy of which is attached hereto, by reference made a part hereof, marked Plaintiff's Exhibit 3; that a follow-up of said document, Plaintiff's Exhibit 3, was forwarded to Defendant on February 2, 1948, a copy of said follow-up is attached hereto, by reference made a part hereof, marked Plaintiff's Exhibit 4; and Plaintiff avers that Defendant made no reply to either of said Exhibits 3 and 4.

8.

Plaintiff, as to paragraph 28 of Defendant's Counterclaim, denies each and every allegation therein contained.

9.

Plaintiff, as to paragraph 29 of Defendant's Counterclaim, admits that the patent in suit No. 2,212,183 makes reference to patents Nos. 1,893,442 and 1,977,240 as exemplifying that for which the patent in suit is an improvement on.

10.

Plaintiff, as to paragraph 30 of Defendant's Counterclaim, if material, denies the allegation therein contained; and Plaintiff avers that reference in said patent No. 2,212,183 to the earlier patent No. 1,893,442 is notice to the world and to this Defendant that the claims of the patent in suit No. 2,212,183 specifically differ from and cover an improvement over patent No. 1,893,442.

11.

Plaintiff, as to paragraph 31 of Defendant's Counterclaim, if material, denies the allegation therein contained, and Plaintiff avers that reference in said patent No. 2,212,183 to the earlier patent No. 1,977,240 is notice to the world and to this Defendant that the claims of the patent in suit No. 2,212,183 specifically differ from and cover an improvement over patent No. 1,977,240.

12.

Plaintiff, as to paragraph 32 of Defendant's Counterclaim, denies the allegations therein contained.

13.

Plaintiff, as to paragraph 33 of Defendant's Counterclaim, denies that it has charged Defendant

with infringement of any claims of patent No. 1,893,442 or patent No. 1,977,240, and denies that there is any threat or likelihood of a multiplicity of suits; Plaintiff avers that it has never asserted said patents Nos. 1,893,442 and 1,977,240 against Defendant; and Plaintiff denies that any controversy exists in fact within the meaning of Title 28, United States Code, Section 400.

14.

Plaintiff, as to paragraph 34 of Defendant's Counterclaim, denies that patents Nos. 1,893,442, 1,977,240 and 2,212,183 are invalid for any of the reasons set forth in paragraphs 13 to 20, inclusive, of Defendant's Answer, and denies specifically that there is any controversy with respect to patents Nos. 1,893,442 and 1,977,240; and Plaintiff avers that any controversy with respect to patent No. 2,212,183 between Plaintiff and Defendant is already in issue by the Complaint on file and Defendant's Answer thereto.

15.

Plaintiff, as to paragraph 35 of Defendant's Counterclaim, denies the allegations with respect to its patent No. 2,212,183 and avers that, as to patents Nos. 1,893,442 and 1,977,240, there is no controversy in fact between Plaintiff and Defendant.

16.

Plaintiff, as to paragraph 36 of Defendant's Counter claim, denies that it has asserted patents Nos. 1,893,442 and 1,977,240 against Defendant and,

therefore, denies that Defendant has been damaged in any manner; and Plaintiff avers that its assertion against Defendant of its patent No. 2,212,183 is as alleged in its Complaint; and Plaintiff denies any damage to Defendant because of Plaintiff asserting its patent No. 2,212,183 and the bringing of this suit thereunder.

Wherefore Plaintiff Prays:

With Respect to the Counterclaim

1. That as to patents Nos. 1,893,442 and 1,977,240, it be dismissed.

2. That this Court hold that there is no controversy in fact as between Plaintiff and Defendant involving said patents Nos. 1,893,442 and 1,977,240.

3. That Defendant is not entitled to any of the relief requested.

4. That this Court, with respect to patent No. 2,212,183 decree that said patent is valid and has been infringed by Defendant in its manufacture and sale of tube couplings, as set forth in Plaintiff's Complaint on file.

5. That Plaintiff be awarded attorneys' fees.

6. That Plaintiff have such further relief as to this Honorable Court may seem proper and just.

LYON & LYON,
LEONARD S. LYON,
CHARLES G. LYON,
WILL FREEMAN,

By /s/ CHARLES G. LYON,
Attorneys for Plaintiff.

PLAINTIFF'S EXHIBIT No. 3

(Copy)

Bair & Freeman

Lawyers

1400 Field Building

135 South LaSalle Street

Chicago 3, Illinois

Registered Mail

January 13, 1948.

Collins Engineering

6116 Sunset Boulevard

Hollywood, California

Attention of Joe Collins

Gentlemen:

We are writing you in behalf of our client, the Parker Appliance Company of Cleveland, Ohio. The Parker Appliance Company is the owner of United States Letters Patent, No. 2,212,183 dated August 20, 1940, upon an application filed March 2, 1938, entitled "Tube Coupling."

The Parker Appliance Company during the War permitted use of its patented structure by the Armed Services of our Government as an aid in national defense and security. A good bit of the life of the patent has thus been utilized for a very good cause. The patent still has a good many years

to run and under these circumstances it becomes necessary that the Parker Appliance Company assert its patent against unlicensed infringers.

This, then, is formal notice to you of our charge of infringement of the above patent and a request that you discontinue further infringement and account to the Parker Appliance Company for infringement to date.

Just recently the Parker Appliance Company had occasion to assert its patent and suit has been filed in the United States District Court for the Southern District of California, Central Division.

We asked that you carefully review the situation and advise us promptly of your attitude so that we may govern our actions accordingly.

Very truly yours,

BAIR & FREEMAN.

8:CLV

CC to Mr. C. H. Wagner, Parker Appliance Company, Cleveland, Ohio.

PLAINTIFF'S EXHIBIT No. 4

(Copy)

Bair & Freeman

Lawyers

1400 Field Building

135 South LaSalle Street

Chicago 3, Illinois

February 2, 1948.

Collins Engineering
6116 Sunset Boulevard
Hollywood, California

Gentlemen:

Under date of January 13th, we sent you a registered letter with respect to United States Letters Patent No. 2,212,183.

The Registry Return Receipt indicates that you received the above letter on January 16, 1948.

We should like the courtesy of a reply.

Very truly yours,

BAIR & FREEMAN.

8:CLV

CC to Mr. C. H. Wagner, Jr., the Parker Appliance Company, Cleveland.

[Endorsed]: Filed May 10, 1948.

[Title of District Court and Cause.]

No. 7874-CIV. (Consolidated)

OPINION

The Parker Appliance Company is the owner of Parker Patent No. 2,212,183, which said patent covers a tube coupling. A tube coupling is composed of three members: (1) a body, (2) a nut, and (3) a sleeve. Plaintiff admits that the body and the nut are prior art. The validity of the patent depends on the sleeve.

Tube couplings are not new. Tube couplings have been used for many years. Sleeves are not new in tube couplings. In fact, from the very beginning, sleeves have been used by inventors and manufacturers of tube couplings. Throughout the years the shape and form of sleeves have been changed, according to the desires of the users or the so-called inventive genius of the inventor.

A sleeve has a flare and a sleeve head. The shape and form of both the sleeve head and the flare have been changed from time to time. An examination of the drawings in Patents Nos. 1,893,442 (1933), 1,977,240 (1934), 2,212,183 (1940—plaintiff's patent in suit), and of the AC 811 Standard Fitting will disclose the various changes which have been made both in the flare and in the head of the sleeve.

As frequently stated at the trial, the two important improvements claimed in the patent in question are the difference in angle between the outer wall of the sleeve and the inner wall of the

nut, which is termed "the sleeve head angle," and the difference in angle initially between the inner angular surface of the sleeve head and the outer angular surface of the tube flare, which is termed "the differential angle." Plaintiff claims that no prior art, patents, or publications in evidence show these features individually or in combination.

In its patent application, in describing the sleeve, plaintiff did not attempt to depict the angle of the "sleeve head angle" or the angle of "the differential angle." Claim 1 of the patent stated that "said head, having the inner surface thereof provided with a coniform flare so shaped that the initial contact of the head with the flared end of the tube is at the free end of the head * * * whereby during the clamping action said head will be expanded and moved forward along the flared end of the tube. * * *"

Claim 2 provided that "* * * * the outer surface of said head and the said inner wall of the coupling member being so shaped relative to each other that when the sleeve head expands during the clamping action they will contact only in the region of the clamping shoulder * * *"

Claim 3 stated "* * * said head having the inner surface thereof provided with a coniform flare so shaped that the initial contact of the head with the flared end of the tube is at the free end of the head and adjacent the outer end of the flared end of the tube, the outer surface of said head and said inner wall of the coupling member being so shaped

relative to each other that when the sleeve head expands during the clamping action, the portion of said head contacting with the flared end of the tube is at all times out of contact with the coupling member whereby the clamping face of the head against the tube end is determined by the spring tension of the metal forming said head.”

In each of the claims, plaintiff alleges the parts are “so shaped” that they produce certain, particular results. With the patent application plaintiff attached certain drawings, depicting the flare “so shaped” that it would produce the results as described in the patent.

Plaintiff alleges defendants are infringing plaintiff’s patent and brings these actions for infringement. The defendants contend, among other things, that Claims 1, 2 and 3 of the Parker Patent, #2,212,183, are invalid for uncertainty and failure to meet the requirements of Revised Statutes, Section 4888, 35 USCA §33.

As heretofore stated, plaintiff did not in the patent application attempt to actually describe the flare “so shaped” but after the use of the words “so shaped” merely described what it would do. It would seem that the claim, after the words “so shaped,” is simply a functional description.

The pertinent provisions of Revised Statutes, Section 4888, 35 USCA § 33, are as follows:

“Before any inventor or discoverer shall receive a patent for his invention or discovery he shall make application therefor, in writing,

to the Commissioner of Patents, and shall file in the Patent Office a written description of the same, and of the manner and process of making, constructing, compounding and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art or science to which it appertains or with which it is most nearly connected, to make, construct, compound, and use the same; and in case of a machine, he shall explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions; and he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery.”

From the foregoing, it will be noted it is incumbent upon the inventor to file a written description of the thing claimed invented, containing “full, clear, concise and exact terms as to enable any person skilled in the art or science to which it appertains * * * to make, construct, compound, and use the same.” If the inventor fails to include in his patent claim such a description, then the patent must be found to be invalid.

“An inventor may not compel independent experimentation by others in order to ascertain the limits of his claims since under the patent law the claims measure the invention.”

—Sales Affiliates, Inc., v. Hutzler Bros. Co.,
71 F. Supp. 287.

Plaintiff in its claim said the sleeve is "so shaped" that it produces certain results. What did plaintiff mean by "so shaped"? There is nothing in the patent application or in the claims to indicate just how the sleeve was to be shaped. No effort was made to give the various angles of the sleeve or to set out any other pertinent engineering detail. Plaintiff was satisfied with describing the sleeve as "so shaped" that it would produce a certain result.

With the patent application plaintiff filed certain drawings, illustrating the flare "so shaped" as mentioned in the application. Although the drawings in themselves give the general shape and contour of the sleeve, the drawings do not indicate in any way the size of the angles, evidently leaving the size of the angles to engineering research.

The claims, as stated by the Court in *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U. S. 405, 419, measure the invention. The claims may be explained and illustrated by the description, but the illustration cannot enlarge the claims. Again, in the case of *Yale Lock Co. v. Greenlaw*, 117 U. S. 554, at 559, the Court says:

"* * * The scope of letters-patent must be limited to the invention covered by the claim, and while the claim may be illustrated it cannot be enlarged by language used in other parts of the specification."

In the *Incandescent Lamp Patent Case*, 159 U. S. 465, the Court says, at page 474:

“* * * If the description be so vague and uncertain that no one can tell except by independent experiments how to construct the patented device, the patent is void.”

Measured by the Incandescent Lamp Patent case, *supra*, it would seem necessary to hold the instant patent void. No one, taking the patent and not using the illustrations, could make the sleeve in question “so shaped” that it would produce the results claimed for it, without independent experimentation. The idea is there expressed that the sleeve could be “so shaped” as to produce certain specific results, but anyone attempting to make such a sleeve would have to experiment to determine, by the trial and error method, just what shape should be used on the sleeve.

Although it may be, as set forth by plaintiff in its brief, that the claims of a patent must be read in the light of the drawings and specifications, nevertheless the Supreme Court has limited the right of the patentee to the claims made, and although the illustrations may explain the patent they may not be used to enlarge the claims.

“A patent covers only that which it claims, and only what is expressly claimed can be infringed.”

Continental Paper Bag Co. v. Eastern Paper Bag Co., *supra*.

The case of *Halliburton Oil Well Cementing Co. v. Walker, et al.*, 329 U. S. 1, is somewhat similar to the patent in suit. In that case Walker Patent

No. 2,156,519 was for an improvement over a prior patent designed to measure the distance from the top of an oil well to the fluid surface of the oil. The patent was held invalid for failure of the claim to make a "full, clear, concise and exact" description of the alleged invention required by Revised Statutes 4888, 35 U. S. C. § 33. The applicant for the patent described the most crucial element of the new combination in terms of what it would do rather than in terms of its own physical characteristics, and at no time did any of the claim suggest the physical structure of the acoustical resonator. The Court said, at page 9:

"We have held that a claim with such a description of a product is invalid as a violation of Rev. Stat. 4888."

From the above it can be seen there can be no infringement of a patent if what is described in the patent application is not claimed.

If we disregard the drawings filed by plaintiff herein with its application and look only to the claims, we find plaintiff is claiming a patent on a sleeve "so shaped" that it will produce certain results. It seems to the Court that this comes within the decision of *Halliburton v. Walker*, *supra*.

Plaintiff makes no attempt to physically describe the structure. He says only that the sleeve is "so shaped" that it will produce certain results.

In *The Incandescent Light Patent* case, *supra*, the inventors discovered a carbonized paper that could be used for a filament in an electric light

globe. However, instead of confining themselves to carbonized paper, as they might properly have done, they made a broad claim for every fibrous or textile material. The Court said, at page 476:

“* * * Under these circumstances, to hold that one, who had discovered that a certain fibrous or textile material answered the required purpose, should obtain the right to exclude everybody from the whole domain of fibrous and textile materials, and thereby shut out any further efforts to discover a better specimen of that class than the patentee had employed, would be an unwarranted extension of his monopoly, and operate rather to discourage than to promote invention.”

In the case at bar it seems that plaintiff has traveled the same road, inasmuch as plaintiff claims a patent on a sleeve head “so shaped” that it will produce certain results. Plaintiff not only attempts to exclude all others from using a sleeve head as described in its drawings but also from the use of sleeve heads “so shaped” that they will produce the same results as plaintiff’s patent in suit.

In *General Electric Company v. Wabash Appliance Corp.*, 304 U. S. 364, plaintiff obtained a patent relating to a tungsten filament for incandescent lamps, based on Pacz Patent #1,410,499. Pacz discovered that a coarse grained tungsten filament was much superior to a tungsten filament of small grain and had a tendency to cure many of the defects of the tungsten filament then used. The claim

set out that the grains must be “of such size and contour as to prevent substantial sagging and off-setting.” Apart from the statement with respect to their function, nothing was said about the size or how the size was distinguished from the grains of earlier filaments. The Court said:

“The claim uses indeterminate adjectives which describe the function of the grains to the exclusion of any structural definition, and thus falls within the condemnation of the doctrine that a patentee may not broaden his product claims by describing the product in terms of function.”

And, as a consequence, the Court held the claim to be invalid on its face, as it failed to make a disclosure sufficiently definite to satisfy the requirements.

From the authorities, we are constrained to hold that Claims 1, 2, and 3 of Parker Patent #2,212,183 are invalid for uncertainty and failure to meet the requirements of Revised Statutes 4888, 35 USCA §33.

Defendants also claim that Parker Patent #2,212,183 is invalid for want of invention over prior art. As stated before, sleeves are not new, and an examination of prior patents indicates that many changes have been made in the shape and form of the sleeve. There has been a constant search on the part of users and inventors to develop a coupling which would be entirely satisfactory, and even the latest developments in tube couplings have not pro-

duced entirely satisfactory results. There is no reason to assume experimentation on couplings and sleeves is at an end, and changes may be made in the future, as they have been in the past, changing the various angles of the sleeve flare and sleeve head. To establish a patent there must be more than mere mechanical skill or, as the Court said in *Gomez v. Granat*, 177 F.(2d) 266 (9th Circuit), at page 268:

“* * * something akin to genius as distinguished from mere mechanical skill.”

There are many instances in which patents have been claimed because of changes in contours. In the case of *Boynton v. Chicago Hardward Foundry Co.* 77 F.(2d) 799, the invention pertained to the process of making a mosaic tile for pavement, mural, and other decoration. Generally it disclosed the same method of making mosaics as did previous patents. It differed, however, in two details. The ridges of the matrix which formed the boundaries of the several inlays were triangular or V-shaped, the base of the triangle resting upon the floor of the matrix. In previous patents they were rectangular. It was claimed the vertical sides and the horizontal bottom would hold the pointed joints more securely than the triangular sides and apex-shaped bottom. The Court said:

“We are of the opinion that inventive genius did not manifest itself in the use of rectangular instead of V-shaped ridges. That, at most, would involve nothing more than mechanical skill.”

In *Gomez v. Granat*, *supra*, the Court said:

“* * * it has been recognized that if an improvement is to obtain the privileged position of a patent, more ingenuity must be involved than the work of a mechanic skilled in the art. * * * That is to say the new device, however useful it may be, must reveal the flash of creative genius not merely the skill of the calling.”

And in *Thompson v. Boisselier*, 114 US 1, (1850), the Court, at page 11, said:

* * * it is not enough that a thing shall be new, in the sense that in the shape or form in which it is produced it shall not have been before known, and that it shall be useful, but it must, under the Constitution and the statute, amount to an invention or discovery.”

Again, in *Hollister v. Benedict Manufacturing Co.*, 113 US 59, the Court held the invention not to be patentable, as it did not:

“spring from that intuitive faculty of the mind put forth in the search for new results, or new methods, creating what had not before existed, or bringing to light what lay hidden from vision;” but that it evidenced “only the display of the expected skill of the calling” and involved “only the exercise of the ordinary faculties of reasoning upon the materials supplied by a special knowledge, and the facility of manipulation which results from its habitual and intelligent practice; * * *”

We have here a case in which the plaintiff is claiming a patent on a flare in which he has changed the contours of the flare itself. Flares have been used for many, many years, and numerous changes have been made in the various angles thereof. Experimentation is constantly being carried on not only by plaintiff but also by others to determine whether or not a different angle in the flare of the sleeve or in the sleeve head is desirable. In fact, the defendants claim, among other things, that the AN Standard and the AC 811 couplings do not infringe plaintiff's patent because the angles of the sleeve head and the flare of the sleeve are different from those angles claimed by plaintiff.

In other words, it is defendants' contention that the Government in establishing a standard fitting did not follow the contours as claimed by plaintiff but established other contours which the Government evidently deemed superior to or an improvement on the previous contours and made them a requirement in the standard fittings. This is only another indication that there is a continuing and everlasting search on the part of inventors and users of tube couplings to develop a coupling superior to those now in use.

Plaintiff says, in its opening brief: "As frequently stated at the trial, the two important improvements of the Parker patent are the difference in angle between the outer wall of the sleeve and the inner wall of the nut which is termed the 'sleeve head angle' and the difference in angle initially between the inner angular surface of the

sleeve head and the outer angular surface of the tube flare, which is termed the 'differential angle.' '' We are of the opinion that the change in the angles between the outer wall of the sleeve and the inner wall of the nut and the outer surface of the sleeve head, and the outer angular surface of the tube flare, does not justify a monopoly. Consequently, judgment should be rendered herein holding that Patent No. 2,212,183 is invalid, and such will be the order. Findings in conformity herewith are to be prepared by defendants' counsel.

Dated: October 16, 1950.

/s/ HARRY C. WESTOVER,

District Judge.

[Endorsed]: Filed October 17, 1950.

In the United States District Court, Southern District of California, Central Division

No. 7874-HW Civil

THE PARKER APPLIANCE COMPANY,

Plaintiff,

vs.

IRVIN W. MASTERS, INC.,

Defendant.

No. 8023-HW Civil

THE PARKER APPLIANCE COMPANY,

Plaintiff,

vs.

JOSEPH C. COLLINS, Doing Business Under the Firm Name and Style of COLLINS ENGINEERING COMPANY, Hollywood, California,

Defendant.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

Findings of Fact

I.

Plaintiff, The Parker Appliance Company, is a corporation organized and existing under the laws of the State of Ohio.

II.

Defendant, Irvin W. Masters, Inc., is a corporation organized and existing under the laws of the State of California, and has its principal office and place of business in the City of Burbank, County of Los Angeles, State of California, within the Southern District of California, Central Division.

III.

Defendant, Joseph C. Collins, is a resident of the State of California, and does business under the firm name and style of Collins Engineering Company, in the City of Hollywood, County of Los Angeles, State of California, within the Southern District of California, Central Division.

IV.

These actions were instituted by the plaintiff separately against the respective defendants for alleged infringement of United States Letters Patent No. 2,212,183, granted August 20, 1940, upon an application of Arthur L. Parker filed March 2, 1938, the actions being brought under Section 24 of the Judicial Code, Paragraph 7, and R. S. Sec. 4921 (35 U.S.C. 70) seeking the equitable remedy of an injunction and asking for an accounting of profits and an award for damages. All three claims of the patent in suit were charged to be infringed. The respective defendants answered separately, attacking the validity of said patent and denying infringement thereof. The two actions were thereafter consolidated for trial.

V.

The plaintiff became the owner of said Letters Patent No. 2,212,183 by an assignment dated December 28, 1943, duly recorded in the United States Patent Office, and plaintiff has ever since been and now is the owner of said Letters Patent.

VI.

The subject matter of said Letters Patent No. 2,212,183 is a three-piece coupling or fitting for flared end metallic tubes. The three parts comprise a body with a tapered nose against which the inner surface of the flared tube end seats and seals, a sleeve having an internal flare adapted to engage the outer flared surface of the tube end, and a nut threadedly associated with the body and adapted to impart and end thrust to the sleeve for clamping the parts together on the tube. Three-piece couplings of this type are very old in the art and the patent in suit is in a very crowded art. The two asserted improvements claimed for the patent (but not properly defined in the patent claims) are the difference in angle between the outer wall of the sleeve and the inner wall of the nut, which is termed "the sleeve head angle" and the difference in angle initially between the inner angular surface of the sleeve head and the outer angular surface of the tube flare, which is termed "the differential angle."

VII.

The descriptive portion of the patent in suit does not describe either the sleeve head angle or the

differential angle nor illustrate the same in the drawing in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains or with which it is most nearly connected to make, construct or use the same.

VIII.

In each of the claims of said Letters Patent No. 2,212,183 the parts asserted to contribute the novelty are described as "so shaped" that they produce certain particular functional results. Claim 1 states that "said head, having the inner surface thereof provided with a coniform flare so shaped that the initial contact of the head with the flared end of the tube is at the free end of the head * * * whereby during the clamping action said head will be expanded and moved forward along the flared end of the tube. * * *" Claim 2 in such respect provides that "* * * the outer surface of said head and the said inner wall of the coupling member being so shaped relative to each other that when the sleeve head expands during the clamping action they will contact only in the region of the clamping shoulder * * *" Claim 3 states "* * * said head having the inner surface thereof provided with a coniform flare so shaped that the initial contact of the head with the flared end of the tube is at the free end of the head and adjacent the outer end of the flared end of the tube, the outer surface of said head and said inner

wall of the coupling member being so shaped relative to each other that when the sleeve head expands during the clamping action, the portion of said head contacting with the flared end of the tube is at all times out of contact with the coupling member whereby the clamping face of the head against the tube end is determined by the spring tension of the metal forming said head." The patentee fails to particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery.

IX.

The patents and a publication listed below were offered in evidence by the defendants as prior art and those considered more pertinent were explained and their relation to the subject matter of the patent in suit analyzed by expert witnesses for both plaintiff and the defendants:

W. N. Abbott	46,603	Feb. 28, 1865
G. H. Buzzell	177,686	May 23, 1876
H. Guyer	182,435	Sept. 19, 1876
H. Guyer	196,084	Oct. 16, 1877
R. McConnell	290,446	Dec. 18, 1883
F. George	326,425	Sept. 15, 1885
I. B. Potts	406,060	July 2, 1889
J. Anderson	535,236	Mar. 5, 1895
L. F. Jordan	654,735	July 31, 1900
J. J. Dossert	772,136	Oct. 11, 1904
F. W. Reed	964,315	July 12, 1910
S. L. Brown	1,058,542	Apr. 8, 1913

A. W. Bachmann	1,352,342	Sept. 7, 1920
J. Benzion	1,680,080	Aug. 7, 1928
E. E. Hewitt	1,820,020	Aug. 25, 1931

Pipes and Tubes

Their Construction and Jointing

by

Philip R. Bjorling

London

Whittaker and Co.

White Hart Street, Paternoster Square

1902

Library of Congress No. TS 280 B 6

X.

The prior art listed above, all of which was considered by this Court, illustrates numerous three-piece fittings for flared end metallic tubes embodying the three essential elements found in the fitting of the patent in suit and in the same relationship for the same ultimate purpose. These prior patents disclose various shapes and forms of sleeve heads and tube flares and angular relationships between the several parts.

XI.

The defendants have independently of one another engaged in the business of manufacturing and/or supplying nuts, bodies and sleeves sepa-

rately, but not as assembled fittings, to ultimate users, such as airplane manufacturers and others, who assemble the requisite parts with tubes procured by the users from other sources and customarily cut and flared by the users. The dimensions and angular relationships of the several parts fabricated or otherwise procured by the defendants and sold to the ultimate users conform to certain Government specifications identified as AC 811 and AN Standard. The defendants assert that fittings, the parts of which comply with such specifications, do not correspond to the claims of the patent in suit, but whether they do or do not this Court does not need to find because it holds the claims of the patent in suit to be invalid. This Court does find, however, that neither the description, drawings, nor claims of the patent in suit contain dimensions, proportions, or angular relationships corresponding to the dimensions, proportions or angular relationships contained in the Government specifications under which the accused fittings and parts were made or sold.

XII.

No one, by reference to the Parker Patent 2,212,183, could produce a fitting which would achieve the results called for by the patent without experimentation, and there is evidence that various shapes of the respective parts might be employed to produce the desired results other than the shapes illustrated in the patent drawing

XIII.

The patentee Parker's contribution to the art, if it is possible of definement, is extremely narrow, and the language of the claims is broad and ambiguous, therefore the claims are broader than the invention, if any.

XIV.

The claims of the Parker Patent 2,212,183 are not susceptible of any interpretation which would preserve their validity because the functional language at the exact point of novelty, if there be any novelty, is lacking in essential structural description.

XV.

The differences, if any, disclosed and attempted to be claimed in the Parker Patent 2,212,183 over the prior art, are so insignificant as to be the work merely of the skilled mechanic and do not involve patentable invention.

XVI.

More specifically, any change which the patentee Parker, in Patent 2,212,183, made over the prior art in the angle between the outer wall of the sleeve and the inner wall of the nut, and between the inner surface of the sleeve head and the outer angular surface of the tube flare, involves no more than mechanical skill, does not rise to the dignity of invention, and cannot justify a patent.

XVII.

Defendants filed a counterclaim seeking declaratory judgment of invalidity and non-infringement of two other Parker owned patents, namely Nos. 1,893,442 and 1,977,240. At the trial plaintiff's counsel stipulated that said patents were not infringed, in view of which this Court finds that if a controversy did exist (a point which the Court does not determine) there is no present controversy and therefore no need for the Court to pass upon said patents Nos. 1,893,442 and 1,977,240.

Conclusions of Law

1. This Court has jurisdiction of the subject matter involved herein and of the parties hereto under the patent laws and the Judicial Code, more particularly R. S. Sec. 4121, 35 U.S.C. 70, and Sec. 24 of the Judicial Code, Paragraph 7.

2. The description in the Letters Patent in suit No. 2,212,183 does not comply with Revised Statutes Sec. 4488, 35 U.S.C. 33, in that it fails to contain a description of the manner and process of making, constructing and using the alleged invention in such full, clear, concise and exact terms as to enable any person skilled in the art or science to which it appertains or with which it is most nearly connected, to make, construct, and use the same, and said Letters Patent as to all claims thereof is therefore invalid.

3. Claims 1 to 3 inclusive of said Letters Patent in suit No. 2,212,183 do not comply with Revised Statutes Sec. 4888, 35 U.S.C.A. Sec. 33, but are un-

certain, indefinite, and ambiguous, and fail to properly point out and distinctly claim the part, improvement or combination which the patentee Parker claims as his invention, and therefore claims 1 to 3 inclusive of said Letters Patent are invalid.

4. Claims 1 to 3 inclusive of said Letters Patent in suit No. 2,212,183 are invalid for want of invention over the prior art.

5. All claims of said Letters Patent in suit No. 2,212,183 being invalid, this Court deems it to be unnecessary to express any conclusion as to whether, if valid, all or any of said claims would be infringed.

6. In view of the stipulation by plaintiff's counsel that the other plaintiff owned patents Nos. 1,893,442 and 1,977,240 mentioned in defendants' counterclaim are not infringed, this Court has no occasion to pass upon said patents and therefore said counterclaim should be dismissed without prejudice and without costs.

7. The complaint should be dismissed for want of equity, and costs be allowed defendants, including reporters' fees.

Dated at Los Angeles, California, this 7th day of Dec., 1950.

/s/ HARRY C. WESTOVER,
Judge.

The foregoing Findings of Fact and Conclusions of Law are Disapproved as to form.

Nov. 14, 1950.

LYON & LYON,
/s/ CHARLES G. LYON,
Attorneys for Plaintiff.

The foregoing Findings of Fact and Conclusions of Law are approved as to form.

Nov. 14, 1950.

HUEBNER, BEEHLER, WORREL, HERZIG &
CALDWELL,

/s/ HERBERT A. HUEBNER,
/s/ VERNON D. BEEHLER,
Attorneys for Defendants.

[Endorsed]: Filed December 7, 1950.

In the United States District Court, Southern
District of California, Central Division

No. 7874-HW Civil

THE PARKER APPLIANCE COMPANY,

Plaintiff,

vs.

IRVIN W. MASTERS, INC.,

Defendant.

No. 8023-HW Civil

THE PARKER APPLIANCE COMPANY,

Plaintiff,

vs.

JOSEPH C. COLLINS, Doing Business Under the
Firm Name and Style of COLLINS ENGI-
NEERING COMPANY, Hollywood, Califor-
nia,

Defendant.

FINAL JUDGMENT

These actions having been consolidated for trial
came on to be heard by this Court and were tried
and argued by counsel for the respective parties
and thereupon, upon consideration thereof,

It Is Ordered, Adjudged and Decreed:

I.

That the complaints herein be and they are hereby
dismissed upon the merits.

II.

That the counterclaims herein be and they are hereby dismissed for lack of present controversy and without prejudice.

III.

That costs be awarded the defendants to be taxed in the sum of \$600.22 and that defendants have execution for the same.

Dated at Los Angeles, California, this 7th day of December, 1950.

/s/ HARRY C. WESTOVER,
Judge.

The foregoing Final Judgment is disapproved as to form Nov. 14, 1950.

LYON & LYON,
/s/ CHARLES G. LYON,
Attorneys for Plaintiff.

The foregoing Final Judgment is approved as to form Nov. 14, 1950.

HUEBNER, BEELHER, WORREL, HERZIG &
CALDWELL,

/s/ HERBERT A. HUEBNER,
/s/ VERNON D. BEEHLER,
Attorneys for Defendants.

Judgment entered Dec. 8, 1950.

[Endorsed]: Filed December 7, 1950.

[Title of District Court and Cause.]

Nos. 7874-HW and 8023-HW Civil

NOTICE OF APPEAL

Notice is hereby given that The Parker Appliance Company, Plaintiff above named, hereby appeals to the Court of Appeals for the Ninth Circuit from the Final Judgment entered in this action on December 8, 1950.

LYON & LYON,
/s/ CHARLES G. LYON,
Attorneys for Plaintiff.

Of Counsel:

/s/ WILL FREEMAN.

January 2, 1951.

[Endorsed]: Filed January 2, 1951.

[Title of District Court and Cause.]

REPORTERS' TRANSCRIPT OF
PROCEEDINGS

Honorable Harry C. Westover, Judge Presiding.

Appearances:

For the Plaintiff:

WILL FREEMAN,
W. M. VAN SCIVER,
LYON and LYON,
CHARLES G. LYON.

For the Defendants:

HUEBNER, BEEHLER, WORREL,
HERZIG & CALDWELL, by
HERBERT A. HUEBNER, and
VERNON D. BEEHLER,

June 14, 1950, 10:00 A.M.

The Clerk: The Parker Appliance Company vs. Irvin W. Masters, Inc., No. 7874-HW Civil, and the Parker Appliance Company vs. Joseph C. Collins, doing business under firm name and style of Collins Engineering Co., No. 8023-HW Civil.

Mr. Huebner: Ready for defendants.

Mr. Freeman: Ready for the plaintiff.

(Other matters were then taken up.)

The Clerk: Parker Appliance vs. Masters and Collins.

The Court: Before we start with this case, I might announce for the benefit of the attorneys that we expect to commence at 10:00 o'clock in the morning. We will take a recess at 11:00 o'clock for 10 or 15 minutes, and we will stop at 12:00. We will reconvene at 2:00 and we will take a recess of 10 or 15 minutes at 3:00, and then we will stop at 4:00.

Now, one of the counsel has intimated to me that this case is going to take a long, long time to try. I want to call counsel's attention to the fact that I am going north to a conference of the judges on the 27th. This case will have to be completed by the 23rd. If you don't get it completed by the 23rd, you may find yourselves over in September or October. Consequently, I want you to stipulate to every issue that can be stipulated to. I don't want you to waste any of [3*] your time or waste any of the court's time in going into a lot of immaterial things.

My experience is that a great part of the testimony that is introduced in lawsuits is immaterial as far as the court is concerned. It may not be immaterial as far as the lawyers are concerned, because the lawyers have no way of looking into the mind of the court and determining what he thinks is of value and what he thinks is not of value. But I want you to keep in mind that if you want an early decision of this matter, you better make arrangements to get it out of your way within the next two weeks, a week from Friday.

I have read the plaintiff's trial brief. Unfortunately, I have not had a trial brief from the de-

* Page numbering stamped at top of page of original Reporter's Transcript.

fendants. I do not know what the theory of the case is except from the viewpoint of the plaintiff. May I ask counsel a question?

Mr. Huebner: Yes, your Honor. I am prepared to make a statement, if you desire.

The Court: All right. I notice in the plaintiff's trial brief that the statement is made that during the war, because there was such a shortage of the things manufactured by the plaintiff, the plaintiff granted to the defendant the right to manufacture without any compensation. Is that correct?

Mr. Huebner: Well, there was an acquiescence, if not a formal license. As I understand the facts to be, some letters were sent out. I don't know how many, but probably a number [4] of letters were sent out by the plaintiff.

The Court: All right. If there was not a direct license, then at least there wasn't any attempt made by the plaintiff to prohibit the defendant from manufacturing.

Mr. Huebner: That we concede, your Honor.

The Court: And subsequent to the termination of the fighting war, the plaintiff attempted to revoke whatever right the defendants had.

Mr. Huebner: The plaintiff so attempted as of December 1, 1945.

The Court: And then the defendants raised the issue that the patents, which the plaintiff claimed, were not valid. Is that right?

Mr. Huebner: The defendant didn't raise the issue until he was sued. The defendants, there are two, did not raise the issue until they were sued.

The Court: There are two defendants here?

Mr. Huebner: Yes, Collins Engineering and Masters, Inc.

The Court: All right. Then I assume that the defendants continued to manufacture, ignoring the request or the demand of the plaintiff, and when the plaintiff filed suit, then the defendants raised the issue?

Mr. Huebner: That was the first time, your Honor, they had occasion to raise the issue. They, as a matter of fact, probably did not know under what patents, if any, they were [5] purportedly licensed. It was a blanket type of an acquiescence, such as many patent owners gave during the war. There was no stipulation in any such license that the defendants acknowledged the validity. It was just one of those frenzy or panic affairs where everyone pitched in and made it.

The Court: I know we were engaged in a very serious war. We had to have materials and many people, corporations, and individuals, gave away rights.

Mr. Huebner: Yes.

The Court: And privileges that they had, in order to carry on the war.

Mr. Huebner: Yes.

The Court: That they wouldn't have done under ordinary circumstances.

Mr. Huebner: That is right. [6]

The Court: And if they did not grant you a specific right under a specific contract, at least they acquiesced in your manufacturing the articles in question?

Mr. Huebner: They acquiesced, yes, but our

point is that we never did use their patents.

The Court: I also notice that in the plaintiff's trial brief there is a statement, I am not quite sure, but I think there is a statement that the materials as manufactured by the plaintiff and the materials manufactured by the defendant are identical.

Mr. Huebner: Yes, but that is not pertinent. It is true that the specifications——

The Court: I am not talking about whether it was pertinent; I am trying to find out what the facts are.

Mr. Huebner: As far as we know, the facts are that the defendants manufacture parts, not assembled fittings, but parts that go into assembled fittings, which are identical in size and shape and of the same materials as those manufactured and sold by the plaintiff, because the Army and Navy standard requires it. It is a governmental specification. So that the commercial items of both companies or all three companies are identical.

The Court: What I am saying to you relative to the license and the acquiescence is applicable also to the other defendant, is it not? [7]

Mr. Huebner: Both defendants. We represent both defendants.

The Court: You represent both defendants?

Mr. Huebner: Yes.

Mr. Freeman: The cases have been consolidated for trial, your Honor.

The Court: You can make an opening statement. I want to find out how many facts we can agree upon.

Opening Statement on Behalf of Plaintiff

Mr. Freeman: May it please the court, as you are already aware, this is a suit brought for patent infringement of the A. L. Parker patent No. 2,-212,183, by the owner, the plaintiff here, The Parker Appliance Company. The Parker Appliance Company has a place of business in Cleveland, Ohio, and likewise has a place of business and a manufacturing plant in Los Angeles within this district. I am going to hand your Honor a soft copy or an extra copy of the patent in suit, which the court may retain and use as a work copy.

Originally we filed suit against Irvin W. Masters, Inc., a corporation, of Burbank, California, and shortly thereafter filed another suit against Joseph C. Collins, doing business as the Collins Engineering Company of Hollywood, California. Mr. Huebner represents both defendants. After the filing [8] of these two suits they were consolidated for trial. As I have said, the products made by the two defendants are identical. They do coincide with the commercial products made by the plaintiff. And I don't think there is any disagreement on that point.

Now, The Parker Appliance Company, the plaintiff, has for many years been engaged in the manufacture and sale of what we shall call two couplings or fittings. These fittings or two couplings are particularly adapted for use in the aircraft industry. Now, the subject-matter of the patent in suit is directed to that kind of a coupling. It is sometimes called a fitting, or sometimes called a coupling, and those terms will be used throughout

the trial, I am sure, by both the plaintiff and the defendant.

I will first direct your Honor's attention to the patent itself. It was filed or applied for in the United States Patent Office on March 2, 1938. It issued a couple of years thereafter on August 20, 1940. The patent issued to Arthur L. Parker, an individual. It was later assigned to this plaintiff The Parker Appliance Company, and there is no question with respect to title of the patent in suit being in the plaintiff here.

Generally speaking, two couplings of the kind here involved include three component parts. Your Honor will hear a lot about a body member, a sleeve, and a nut. Those are [9] the three components that go to make up a fitting.

I am going to hand your Honor, as illustrative of what is here involved, a physical structure upon which we have marked the term "nut," "body," and "sleeve," as well as the word "tube." That will be helpful as we proceed in our case, and as we use relative terms in designating the patent, as to what the plaintiff makes under the patent and as to what we charge is an infringement.

The body member, which you have in your hand, may take many different forms. The one that you have there is what we might call a straight, that is, a direct line through. In some instances, the body member is T-shaped, that is, there are three entrances or three openings into the body member. In some cases it is curved or arcuate and called an elbow. In any event, one end of the body member

is screw-threaded, and there is also provided adjacent those screw threads a wrench-engaging portion. That is the square or the octagon-shaped portion or six-sided-shaped portion on the body member of the fitting that I gave your Honor. One end of the body includes what we will call a cone-shaped surface or a beveled surface, sometimes referred to as an inclined surface, or even a tapered surface. That particular surface is the part of the fitting against which the inside of a flare of a tube may rest or it seats itself against that cone-shaped or inclined or bevel-shaped portion. [10]

I am going to hand your Honor a separate piece of tubing with a flare on it, and it is that flared or funnel-shaped portion which engages the cone-shaped part of the body member proper. [11]

Now, the physical devices that I have given you, your Honor, I have shown those to Mr. Huebner before we came into court this morning.

I referred to the body member. There are the other two members, which are the sleeve and the nut. They go together with the body member for making up the tube coupling of the patent. The sleeve surrounds the tube and engages the outside surface of the flare of the tube to be coupled to the body member. There is a nut member which extends around the sleeve, or it encompasses it. It engages a shoulder on the sleeve and it is threaded, that is, screw threaded as a connection between the nut and the body member so that as you screw the nut onto the body member, you have a shoulder engage the

sleeve, which in turn engages the flare of the tube for bringing the mating surfaces or the engaging surfaces of the tube with the body member to provide a connection that will hold a terrific amount of pressure.

The Parker patent—I am now speaking about the patent—is directed to more than merely the three component parts, which I have here referred to as a body, a nut, and sleeve. Each of these three parts, as we will show, cooperates one with the other and are so shaped as to bring about something different than what was done before with the earlier so-called three-piece fittings.

At the outset, I want to call your Honor's attention to [12] the fact that Parker himself made earlier, or before the application of this particular patent, a three-piece fitting that likewise included a nut, a body member, and a sleeve. However, that earlier fitting and, as we will show, the three-piece fittings of the prior art, did not include a sleeve member of this particular kind, and you will hear the term used, outside angle on the sleeve. Those are additions over and above what we might call the earlier type of three-piece fittings.

Now, there are also fittings of the kind that are sometimes called two-piece fittings.

As I have said, the plaintiff here was a pioneer in the manufacture of fittings generally. Late in the 30s, Mr. Parker developed the particular three-piece fitting of the kind now shown in the Parker patent. It differed from the earlier three-piece fittings in that the outer wall of the sleeve was in-

clined so that its nose or forward end, or the lower end, might expand outwardly toward the nut and yet not come in contact with the inner wall of the sleeve—with the inner wall of the nut.

This feature, as we will point out, brought about a very great advantage. It solved a problem, especially a problem that confronted the aircraft industry in connection with hydraulic fittings where high pressures are used.

Your Honor will hear during the trial the term spring [13] tension or hook tension, and those are terms that are defined or expressed in the Parker patent and in the claims of the Parker patent. That reference to spring or hook tension deals with the sleeve and the expansion of the lower or nose end of the sleeve for firmly gripping the outside surface of the flare against the inclined or tapered surface of the body member. That is something that is essential, it is necessary in order that you make a tight seal. We will show that this seal is accomplished to withstand high pressures without the use of any gaskets or any sealing fluid. The surfaces have to be accurate, they have to be so arranged that you can have nothing but metal to metal contact and yet withstand pressures that sometimes run up to 3,000 pounds per square inch.

Now, the inside of the sleeve, that is, the sleeve itself, is so shaped with respect to the nut which moves the sleeve downwardly on the flare so that the lower end of the sleeve will not come into intimate contact with the inside wall of the nut because, if that happens, you have what we call jamming, and

then you cannot remove the nut without likewise removing the sleeve or moving the two pieces together and, of course, that is undesirable, as we will show, particularly in aircraft fittings where you have very little space and you are called upon to put in many hundreds, yes, thousands, of fittings, and many tubes in connection with the [14] hydraulic systems of aircraft.

The cooperation of the expansion of the sleeve head bringing about what I have referred to as hook tension and permitting freedom of such expansion within the nut produced an advantage and solved a problem soon recognized by those skilled in the art as a solution to a problem which had confronted the industry for many years. Once that problem was solved by Parker, it was soon adopted.

The patentee Parker disclosed in the three figures of his patent drawings exactly what I mean by the body member, the nut, and the sleeve. The relationship of each part is fully disclosed and the part that each plays in the makeup of the combination, which we collectively call the tube coupling. It is of utmost importance that the parts be so shaped and so arranged as to permit hook tension and at the same time a full contact between the sleeve shoulder and the nut shoulder. The shoulders of the nut and sleeve, where they contact or come in contact with each other, is referred to in the patent as the region of contact.

The inside of the sleeve is arranged at an angle different than the angle of the exterior of the flare, so that when you first engage the sleeve against the

flare, you have contact between the flare and the sleeve only at the nose end or lower end. Now, these two different angles are sometimes referred to as differential angles. [15].

Now, as the parts are brought home or are screwed together, you start with toe contact between the sleeve and the flare. Your Honor will hear throughout this trial the term used of initial contact or line contact. That is what we mean when we say that the toe end of the flare or the bottom end of the flare engages the bottom end of the sleeve, and thereafter, as you bring the nut home or you tighten the parts together to bring about a seal, you then get area contact as distinguished from line contact.

The advantages of this feature and the features that I have already referred to will be more fully explained as we develop and explain to your Honor the subject matter of the patent in suit. It is these features, individually and collectively, put into a three-piece fitting for the first time by Parker, that substantiates the fact that Parker made an invention. [16]

He did something that served as a contribution to the art of fittings.

Your Honor will hear the term hydraulic systems of aircraft. Now, these fittings go primarily for use in connection with the hydraulic systems of aircraft, although they are likewise used in many other systems such as the fuel lines, the vacuum lines, the oxygen, and various other parts of the airplane that require tubing, and require likewise fittings.

Your Honor is familiar with what we call the

landing gear mechanism of an aircraft. That is retracted and lowered. It is retracted after take-off; it is lowered just immediately preceding landing. The control of the landing gear mechanism is either under the influence of the pilot or in some of the combat planes it was under the direction of an engineer or an operator, and he controls remotely from the landing gear the actual operation, by which the landing gear mechanism is lowered. Now, we do that or they do that, the aircraft people do that, by a hydraulic system. They have a pump mechanism which pumps fluid through tubing to the place where the landing gear mechanism is and brings about due to the pressure involved the lowering or the retracting, as the case may be.

Now, these fittings, of course, must operate satisfactorily, because if you have failure of a fitting or a leak in [17] this metal to metal joint you then have disaster.

It is sometimes said that in aircraft production you have to be right all the time, you can't be right just part of the time, because it is too late if you are wrong once.

Also, if you have a leak in a fuel line you then have the possibility of fire, and of course that likewise is a hazardous condition when you are going cross-country or involved in combat traveling at 200 and 300 and 400 miles an hour.

Parker having been a pioneer and having grown up with the aircraft industry, and having supplied fittings of a kind to the manufacturers of aircraft

in the late '20s and the early '30s went on and operated a large research and development department so that he might keep apace with progress that was being made in aircraft. And we all know that as the aircraft progressed it became from a single-engine ship to a four-motored, and so on. As the ships, the aircraft, increased in size, the demand and the requirements for a fitting became greater and greater, and the kind of fitting that solved the problem back in the late '20s was not applicable in the late '30s and the early '40s, because it took higher pressures to operate the mechanisms of the various aircraft.

Now, of course you can solve the problem if you want to make a large and heavy fitting, you make the parts withstand [18] high pressures. But of course when you get to the aircraft industry you always think first of how small can we make it, how light can we make it, and yet maintain the strength necessary to do a real job.

Weight is of extreme importance in an airplane, and a fitting, even though it is small as we view them here, many thousands of them are used in aircraft, and thus you have to hold the weight down to the very, very minimum.

It is the pay load in a commercial airplane and the bomb load in a combat plane that counts.

The problem of making a good fitting that would meet all of the rigid requirements meant that the solution thereof was not easy. Parker took to the task and solved the problem. Today the defendants

look upon the solution as a little change. And I say to your Honor, call it whatever you want, call it little things, or call it little changes, yet there is no little thing by way of a change in a fitting, because every change is a big factor towards safety and proper operation. Today the defendants incorporate what they now say are the little things. They must incorporate those features in order to make a fitting that will do the job that will permit airplanes to take off from Los Angeles and land in New York with safety.

We will show, as we progress in our trial, that the Parker fitting, particularly of the kind shown in the Parker [19] patent, soon became recognized as a standard aircraft fitting. The Air Corps recognized it and designated Parker fittings. Then came the period of preparedness immediately preceding World War II, and with the tremendous demand upon this plaintiff here to supply manufacturers of airplanes Parker fittings of the kind, as we will show, involved in the subject patent here involved. As I have said, there were thousands of fittings used upon each plane, and of course planes were in great demand. They served a very definite need, that is, the fittings, and they are the measure in every plane between success and failure. The period of preparedness was soon followed with World War II. We can all remember the hectic days of '41 and '42 when the cry was "More planes, more planes." Parker was unable to supply the heavy demand through its own manufacturing facilities, and in co-operation with the Armed Forces released

for free to manufacturers of fittings, to aircraft manufacturers and those who were helping build up the arsenal of democracy, the right to make the Parker type fittings, yes, all of Parker's products without charge or royalty return, so that more and more Parker fittings might be made for use in helping defeat the enemy.

The plaintiff furnished manufacturing drawings by the thousands without charge, so that others might immediately begin to manufacture fittings, because the demand was so [20] great, and so that such other manufacturers could immediately get into production without going through the labor pains of research and development.

One of the defendants, I think there will be no question about it, in this case, that is, the Masters Company, received prints from this plaintiff of the very fittings here involved, and was permitted to proceed to manufacture such fittings of the Parker kind as embodied in the Parker patent, without any reward or return to the Parker Company, other than the good that we could do to help defeat the enemy.

Now, in December of 1945 that permission was withdrawn after the active warfare with Japan terminated.

The defendants in this case, both started because of the demand for fittings of the Parker kind, they were really put into business because of the necessity for preparedness, they had made available to them shop drawings of the Parker Appliance Company, they had made available to them all of the

research and development of The Parker Appliance Company, so that they could in short over night get into production in the manufacture and sale of aircraft fittings.

They are matters which our proof will develop, and we will show the tremendous amount of research and development done by Parker, the contribution that the Parker patent made, and the impression it made upon the art of fittings for [21] use in aircraft.

We have taken some pretrial depositions of some aircraft engineers, and we will show by such testimony that men skilled in the art, who knew fittings, who knew the early experience in connection with aircraft, recognized the Parker contribution and the benefit that Parker had bestowed upon mankind.

Now, that contribution, your Honor, is defined in the three claims in the patent in suit.

Defendants in this case, as in every patent case that I have been associated with for thirty years, come into court and say Parker made no invention, the patent is invalid, the changes amounted to little or nothing.

Now, the burden of so showing rests heavily upon the defendants. Today the defendants pay tribute to the prior art, but they pay tribute to us by imitating the Parker patent. They have cited some seventeen or eighteen prior patents that we will refer to as the prior art. They say each of these prior patents, some seventeen or eighteen in number, anticipate and negative any invention made by Parker.

Now, that is the usual defense made by a defendant. Now, we will show that those references, the very patents that they now use as anticipating or negating invention by Parker, were actually considered by the Patent Office, by the experts in [22] the Patent Office, who are in position to know, and we will show that the patents which they now have additionally included are no closer, as references, than those that were actually considered by the Patent Office. [23]

In this particular case, as I have said, Parker himself had other patents. Parker himself made other three-piece fittings. When Parker filed the particular application of the patent in suit, he told the Patent Office that this was an improvement over one of his earlier patents. In other words, all of the facts were presented to the Patent Office, so that the Patent Office, with all of that knowledge, with all of that information, determined that the three claims of the Parker patent should be allowed. These are the claims we now charge are infringed by the defendants in their manufacture and sale of fittings, and in some cases—I think one of the defendants here does not now have his own manufacturing facilities, but he has others make the fittings for him or the components that go to make up the fitting, for him. I think that is immaterial.

We have taken some pre-trial depositions of both the defendant Masters and the defendant Collins, and we will show exactly what the defendants manufacture in this case and what they sell.

We will show that men technically trained with

the use of fittings, men who have had great experience in hydraulics and particularly hydraulics for aircraft, all kinds of aircraft, all recognize that the difference in construction, the relationship of parts of Parker fittings of the patent in suit, over that which preceded the earlier devices, was a [24] determining factor in making the fitting commercially successful and as a solution to a longfelt want.

We will show further that the Army, and later the Navy, adopted the Parker fitting as its standard. Your Honor will hear the term AN fitting used. The initial A stands for Army, and the letter N stands for Navy. Hence the term, AN fitting.

The Parker type fitting and the AN flared fitting are one and the same, and we will so show. We will show that during the war when confidential information was gathered as to the facilities of various manufacturing plants for manufacturing the Parker type fitting, in all of the correspondence and in the tabulations made by those that were scheduling the manufacture of fittings, they referred to the fitting that is here involved, the AN fitting, as the Parker type fitting.

Incidentally, I think I can say this without fear of contradiction, Mr. Masters himself would agree that these fittings are generally recognized and are referred to in the trade as the Parker type fittings.

Parker made a very valuable contribution. He made that contribution available at a time when this country needed every ounce of energy it had for its war production. Now that the war is over, plaintiff

is seeking to do with its patent that which it is justly entitled to, and that for [25] which the patent statutes were initially enacted, to reward an inventor for his contribution to the sum of the world's knowledge.

Plaintiff is entitled to the exclusive use of its patent for a limited period of its life. That life is 17 years. Now, plaintiff, starting in 1941 and going on through the war, gave away a portion of that limited life, made it available to others free of any monetary return.

I will show or, as the case progresses, we will show that there was an outstanding licensee, a manufacturer of fittings, a very large company, the Weatherhead Company. It had a license and it paid the plaintiff a royalty. It was obligated to pay plaintiff. When the war came on and when Parker made this available to others, that royalty was cancelled. That company is now a licensee and is now obligated to pay. But from the period of 1941 on and during the hot war, we gave up any kind of return.

Plaintiff, while it might maintain its patent for itself, has seen fit to grant licenses to others, and grant, as I said, a license to a company in Cleveland, the Weatherhead Company. It granted two licenses to companies here on the West Coast, located in the Los Angeles area, and now obtains or gets from those licensees a small royalty return.

I am not going, in my opening statement, to refer to some of the propositions of law which may develop as the [26] trial progresses. We briefly quoted some of those decisions, that is, the cases we rely on,

cases from the Supreme Court of the United States, and particularly those of the Court of Appeals for the Seventh Circuit in our trial brief. Did I say Seventh Circuit? I meant to say the Ninth Circuit, your Honor. We did quote one good case, I think, from the Seventh Circuit, one we were interested in.

I have given your Honor a copy of the trial brief and I have likewise furnished a copy to opposing counsel.

Keeping in mind the remarks your Honor made with regard to not putting anything in that is immaterial, I want to assure your Honor that we are going to endeavor to present the facts of our case as clearly as we possibly can, and we will endeavor to do it in as simple language as we can, so that all of us will understand the problem here involved, and will understand the subject matter of the Parker patent and the contribution made by the Parker patent. Thank you.

The Court: May I ask you a question?

Mr. Freeman: Yes, sir.

The Court: These permits or licenses or acquiescences, whatever they are, that Parker granted, were they granted in writing or was it oral?

Mr. Freeman: No, they were granted in writing. They were acknowledged by the other people. We furnished prints by the hundreds of thousands. [27]

The Court: Is there written evidence as to the relationship between Parker and the defendants?

Mr. Freeman: Yes. The defendant Masters, we have a letter that we will show as to them. I asked

them to produce the original and they haven't produced it, unless Mr. Masters has brought it up here, but we will show definitely that we furnished the blueprints to Masters of the kind here involved.

Incidentally, I can say to your Honor that we took pre-trial depositions and I asked for the production of certain of their so-called active prints from which they made the fittings of the kind here charged to infringe, and one of the defendants produced a Parker drawing as his active drawing, and that testimony was taken pre-trial July 12 of 1949, so I don't think there will be any question on that.

The Court: Does this particular case depend entirely on oral testimony or on written?

Mr. Freeman: No, sir, your Honor.

The Court: It depends on written documents?

Mr. Freeman: Our case here will be 99 per cent documents, with explanation for the other 1 per cent.

The Court: Now, can you tell me when permission was granted to the defendants, was it granted to make the Parker fitting or was it granted to make a Parker type fitting?

Mr. Freeman: Well, it was granted to make a Parker [28] fitting, because we asked them to designate or put their own name on the fitting. We furnished them the prints.

The Court: The reason I asked that is because you have talked about the Parker fitting and then you have talked about the Parker type.

Mr. Freeman: I use those terms interchangeably. It is the Parker type. The defendant may not

go along with that on the question of Parker type or Parker fitting. Of course, we recognize that it is our burden to show that the fitting of the kind that we permitted them to manufacture, that the blueprint and prints we furnished them, embody the subject matter of the patent, and we are prepared to show that.

The Court: Can you tell me, is it the contention of the plaintiff that the Army and Navy in setting up their specifications for airplanes inserted a specification that they were to use the Parker fitting, or was it a Parker type fitting?

Mr. Freeman: They set up characteristics that they wanted in a fitting. As I said, Parker sold fittings for many years, and then Parker came along late in the '30's with the subject matter of this particular patent.

The Court: Well, this fitting manufactured and produced by Parker is known as a Parker fitting?

Mr. Freeman: Right.

The Court: Now, when the specifications were written [29] by the government, did they designate that the fittings had to be a Parker fitting or did they designate that the fitting could be a Parker type fitting, or do you know?

Mr. Freeman: Well, I don't know just what was going through their minds. We have documents here——

The Court: You have the specifications, haven't you?

Mr. Freeman: I know this, your Honor, that when they designated the kind of a fitting that they

wanted, they wanted one that had what we call a differential angle and we know that they wanted the one that had the outside sleeve angle, and when they made all those designations, they spelled out the Parker patent. The government recognized that the fitting that they were specifying as the type that they wanted was a Parker patent fitting, because we gave the Air Corps permission, and we will show that——

The Court: That is true, but you haven't answered my question, except inferentially. I think you have in a roundabout way. They didn't say in their specifications, "We want a Parker fitting"?

Mr. Freeman: No.

The Court: "We want a fitting manufactured by Parker"?

Mr. Freeman: Oh, no, no, no. They didn't say they wanted a fitting manufactured by Parker. They did say, "We want a fitting of the kind, whether made by Masters or Lockheed or Douglas, corresponding to the Parker fitting." [30]

The Court: In other words, what they wanted was a Parker type fitting.

Mr. Freeman: Right.

The Court: It is nearly 11:00 o'clock. I think we will take our morning recess before we hear from the other side.

We will now recess until 10 minutes after 11:00.
(Recess.) [31]

Opening Statement on Behalf of Defendants

Mr. Huebner: Your Honor, this case is starting, as my friend, Mr. Freeman, says, in the usual way.

He anticipates that we will attack his patent on all the grounds given in the book, and he prepares for that by giving us a great big build-up on nothing, which the evidence will eventually show. He did it in a very dignified way, and we must respect and consider everything that he said, but the evidence will show that the glorification which he gave to this patent was not justified.

Our defenses are, first, invalidity of the Parker patent No. 2,212,183; second, that we have not infringed, neither of the defendants have infringed any of the three claims of the patent in suit; and, third, that there has been a probable abuse of the patent rights by the plaintiff. I say "probable" because while our information indicates that there has been an abuse, we will not know until the evidence is closed whether we will feel justified in finally urging that point.

The Court: What kind of abuse do you think the evidence might disclose?

Mr. Huebner: That is ahead of my story, but I will tell it to you now. We think that the evidence will disclose that the operations under the three licenses referred to, namely, Weatherhead, and Mr. Freeman didn't mention it, but I think [32] the others are Pacific Screw Products and the Deutsch Company, both of Los Angeles, that the operations under those licenses have related to acts and things and tribute outside the scope of the patent, and that they have used this patent and other patents for the purpose of establishing a monopoly outside the scope of the patent.

I will revert to that subject.

The Court: I am somewhat familiar with that angle, because I have another patent case in which that is the main issue involved, so I know something of your law points and your arguments and your philosophies in regard to that point.

Mr. Huebner: Well, that is fine. That is not our main point yet, but it may wind up being our main point. [33]

As to the counterclaim, to which Mr. Freeman did not refer, we would like to hold disposition of that until the close of the main case. We, by counterclaim, put into issue two additional earlier Parker patents which, incidentally, are referred to in the license he talks about. We think that the evidence will show that there has been a controversy and that threats have been made or assertions established by which we and our customers, and I say we, meaning the defendants, we and our customers are charged to have infringed these two additional patents. It is quite probable Mr. Freeman will say there is no controversy and also probable he will stipulate or admit that we have not infringed them, but we would like——

Mr. Freeman: I am very happy to make that statement now, that we do not charge them to have infringed or that they are infringing, and we will not assert either of those two patents set up in your counterclaim from now on out. You are free as all outdoors to do as you want.

Mr. Huebner: Against the defendants?

Mr. Freeman: The defendants and their customers. You can go as far as you want.

Mr. Huebner: That will take care of that disposition, except for the formal disposition. We may be entitled to a stipulated judgment if we show during the course of the trial that there was a controversy. Then we can accept Mr. Freeman's [34] stipulation and ask your Honor for a judgment accordingly based on the stipulation. If we don't show that there was a controversy, we may have to be satisfied with a dismissal of our counterclaim conditioned upon the record of his stipulation. I don't know yet.

Now, Mr. Parker was a pioneer, if it is pioneering to engage in the manufacture of a coupling that was known 75 years before he began. Other people, many, many other people, have manufactured couplings over these years. Mr. Parker or his company had the advantage of growing during the war period, and I make that not in the form of an accusation, but here was a demand, a sudden demand, for a lot of these things he had been making——

The Court: Your clients grew during the war, didn't they?

Mr. Huebner: Surely. A lot of people did. So that he isn't entitled to reinforce or expand his patent monopoly by reason of the fact that he was the first when the Army and the Navy wanted some fittings.

The Court: The fact of the matter is, a patent is a monopoly, isn't it?

Mr. Huebner: A patent is a lawful monopoly.

The Court: Nothing illegal about it.

Mr. Huebner: Not in the slightest. A patent is a lawful monopoly and is presumed valid until it is decided to be [35] otherwise.

The Court: I don't want to interrupt you in your statement, but may I ask a question?

Mr. Huebner: Surely.

The Court: You know, unfortunately, when attorneys come before me, they get cross-examined so that I can find out their theories.

Mr. Huebner: That's all right.

The Court: Do you admit that your clients have been making the Parker fitting or is it a Parker type fitting?

Mr. Huebner: It is not a Parker fitting. The so-called Parker type fitting stems back to the days when Parker promoted the Army and the Navy with certain plans and got them to adopt the name, more or less. That is where that comes from. There has been reference to a Parker type fitting, and I think it has been loosely referred to as a Parker fitting. But that doesn't mean it was a fitting under the patents. That was just because of the circumstance that Parker was the first one around when the Army and Navy began calling for these and used that particular name. But more commonly, it was referred to as the AC, and later with a number, AC-11, and so on. Subsequently, and more currently, more in use is the so-called AN fitting, meaning Army and Navy.

The Court: You don't deny, do you, that you got from [36] the Parker Company the right to manufacture or the right to make, or permission, let us say, to make these?

Mr. Huebner: Let me put it this way. Our clients do not recall ever having received a letter from Parker. The facts are, however, no claim was made for infringement during the war period, and there was an acquiescence on the part of Parker in what our clients did.

The Court: I want to know, if I can, whether or not your clients had the permission to make the parker fitting or whether you had permission to make a fitting similar to the Parker fitting.

Mr. Huebner: That is what we had, if anything. If anything, we had permission to make a fitting similar to the so-called Parker fitting. That permission went to whatever the Army or the Navy wanted, or the Air Corps.

The Court: You don't recall or you cannot find in the files of your client, a written memorandum giving them this authority?

Mr. Huebner: We do not and cannot. It may be possible if plaintiff produces a carbon copy and we show it to our client, they may recall, but at this time, your Honor, they do not recall any express permission of that character.

The Court: Can I ask you another question?

Mr. Huebner: Surely.

The Court: In the contracts that your clients got, I [37] presume they got many contracts from various airplane factories for fittings, did these contracts call for the Parker fitting or the Parker type fitting?

Mr. Huebner: Your Honor, they would be ordered from the airplane companies or other cus-

tomers by the government designation. They wouldn't be ordered as fittings either, your Honor. That is another point I will come to, but while we are on it, let's touch on that a little further. [38]

The customers don't order a fitting; they order a nut, or so many hundred nuts of a given Army, Navy, or other governmental designation. The size is specified and reference is made to drawings and standard specifications. Or they may order so many hundred bodies, or they may order so many hundred tubes, and they may order from our clients nuts only, and from another alleged infringer, or licensee, it could be either, so many hundred sleeves to go with what they bought from these people.

The Court: Then these fittings are more or less standard regardless of who made them? They are interchangeable?

Mr. Huebner: Yes.

The Court: That is, they can take a part of your fitting and use it on a part of the Parker fitting?

Mr. Huebner: Absolutely.

The Court: Or the part of some other company?

Mr. Huebner: Yes. And during the war there were, I believe, between two and three hundred, at least, suppliers of these parts which eventually theoretically found their way into an assembly called a fitting.

The Court: Is that a fair statement, that these fittings are interchangeable?

Mr. Freeman: Yes. Because they were made, as I said earlier, the Masters Company used our draw-

ings and still use [39] our drawings, and we asked that they follow our specifications, and they got any of our change orders, so obviously they were alike. Because, and I don't want to argue this, we gave permission, say, to Douglas Aircraft, first we said to Douglas Aircraft, "You can make these fittings for yourself," and we said, "If you make any more than you need for yourself, we will take them off your hands, but you make them in accordance with our specifications." Then that wasn't enough, because as we all know, we had the war period. Then we said to Douglas, "You can make for yourself or procure from others those fittings," and we furnished them with thousands of prints, and we will show that, which prints they then gave to shops all over the Los Angeles area, so that they could get nuts, bodies, and sleeves, so they would have fittings to put on airplanes.

The Court: All right. Now, that leads to another question. I understood a little while ago that you said that you had given prints direct to Masters.

Mr. Freeman: I made that statement, and we will prove it.

The Court: Masters didn't get it from Douglas?

Mr. Freeman: In addition, your Honor, we not only gave prints to companies that we actually wrote them a letter and said, "Here they are," but we also then made, after we did that—like with certain companies, we told those companies [40] that "you are free to go spread these prints anywhere you want to and get these parts made anywhere you want to, just so that we get fittings."

The Court: Excuse me for breaking in, but I wanted to get that.

Mr. Huebner: I think it is helpful.

The Court: I wanted to get clear that these parts were interchangeable between the different manufacturers.

Mr. Huebner: Yes, that is all right. I think it is much better that it be clarified as we go along.

Now, your Honor, just another general comment before I get down to points. Mr. Parker and his company took out many patents, not just the one in suit, but even attached to the complaint, and I am not talking now to thin air, because you can look at an exhibit to the complaint and find a long printed list of Parker-owned patents. He tried to be an opportunist, he was undoubtedly a very fine businessman, and a good engineer, he took out patents on this way of doing it, and that way of doing it, and this way of making it, and that way of making it, so whichever way the wind blew, and it is good business, but it doesn't help him in this case, whichever way the wind blew he could collect if he could.

The Court: There isn't anything wrong to take out as many claims as you want to, is there?

Mr. Huebner: No, that is all right. But I comment on [41] that merely to indicate as the case progresses that what he has here in issue and makes so much about is a little insignificant thing, one of fifty that he had, so that he could try to catch something as the wind blew.

The Court: I wonder if I could ask learned counsel a question. We have some very learned

counsel in this case who evidently know a great deal more about patent law than maybe I will ever know. When an application is made for a patent, there is evidently a very extensive investigation made by the Patent Office, and they consider the prior patents, the patents that were granted prior thereto, and the claims thereon, and then they come up with an answer, either they say you cannot get a patent because someone else has a patent, or this has been patented for a long time, it is in the public domain, and so forth and so on, or they say you can get a patent and they give you a patent. Is there any weight given to the finding of the Patent Office?

Mr. Huebner: Not much any more. There used to be.

The Court: Does the court have to follow the findings of the Patent Office?

Mr. Huebner: No, sir. At least half of the courts don't. If I may reply to that suggestion. First of all you file your patent application and the examiner on his first search does probably a cursory job. They are under-staffed, they have a lot of work to do, their quarters are stuffy, [42] even though they occupy eight acres in the Commerce Building, and the working conditions aren't good, but they go to their stacks and they dig out what patents they think are pertinent and cite them. Then we go back again, the attorney maybe changes the language around, and sends in what we call an amendment or argument, and eventually there is built up what we will refer to, and your Honor probably has heard referred to, the file wrapper.

Somewhere along the line there the examiner should make a good search, and they conscientiously try to do so. So often they miss more pertinent art than they cite. Over and over again that happens. Their time is limited, the human equation is involved. They render their quasi-judicial decision as a Patent Office examiner, and out of that comes a patent. Quite often you don't get your patent until you more or less wear the examiner down, you go back there and talk to him and sit down with him and argue with him, as well as write letters to him, formal letters. Eventually if you can convince him that perhaps you have something there, he will give you the allowance, because he knows if he has made a mistake a court will eventually rectify it. And if you compare the decisions by the Supreme Court, you will find probably half or more of the patents before that court have been held invalid, which overrules, of course, the Patent Office examiner. And throughout the other Federal Courts you will find a very [43] large proportion of patents overruled.

There was a time when that rule that a patent is presumed valid until declared otherwise was given a lot of weight. It still is a rule and it is still followed by our Ninth Circuit. But it isn't given the same emphasis; it isn't given the same standing that it used to have.

The Court: Can I ask you this: Is it still the rule in this Circuit that the patent is presumed valid unless the one who attacks the patent can

prove to the contrary by a preponderance of the evidence?

Mr. Huebner: You don't need the word "preponderance" in there.

The Court: You don't?

Mr. Huebner: The rule is correct except for the word "preponderance."

The Court: What word should be used?

Mr. Huebner: Just leave it out.

The Court: Well, the burden of proof is upon the attacker?

Mr. Huebner: All right, the rule is correct that the patent in this Circuit is presumed valid until otherwise proved, and the burden of proving it invalid is upon the defendant. But that burden may be exercised in numerous ways, and introduction into evidence of a single patent would be [44] sufficient.

The Court: I am not talking about how you are going to get around that. But if I were to determine in my own mind, after hearing all the evidence and all the arguments of learned counsel, that the scales are equally divided, however the defendant, the attacker, has not been able to sustain the burden of proof——

Mr. Huebner: You have got to go, then, for the plaintiff.

The Court: And I have decided a lot of cases on exactly that theory, that the burden of proof is upon the plaintiff or defendant, whatever it might be, and if they cannot sustain their burden they are not entitled to recover.

Mr. Huebner: That is sound judicial policy, but there is another burden I will get to, and that is the burden of proving infringement. We have the burden of proving the patent is invalid, but he has the burden of proving infringement. So he has the same effort to show we have infringed that we have to show that his patent is invalid.

The Court: If he produces a patent, theoretically that patent is good until you can show the court to the contrary?

Mr. Huebner: Yes, sir.

The Court: All right. He produces the patent, you have admitted the patent is here, now you say the patent is invalid, the burden of proof switches to you to show it is invalid? [45]

Mr. Huebner: On that issue only.

The Court: On that issue only?

Mr. Huebner: That's right.

The Court: As far as infringement, don't you admit that you have been making exactly the same article?

Mr. Huebner: No. I didn't get to that yet, but we absolutely deny it. [46]

The Court: Although they are interchangeable, they can be used part by part, nevertheless they are not the same?

Mr. Huebner: Mr. Freeman, in his nice way, put one over there. I mean in a very proper way. He tells you—I am not saying you didn't do it properly.

The Court: This is not critical, you understand. This is just friendly.

Mr. Huebner: This is just a friendly discussion. He told you the Parker fitting manufactured for the government, or the parts that made it, were identical with the patent. I say he is all wrong on that and that is part of our case. Surely, the commercial items manufactured by Parker and the commercial items manufactured by both defendants here are interchangeable, but neither of those commercial items fall under the scope of the patent, and that is going to be one of our contentions.

The Court: That is fine. Now I am finding out what the issue is.

Mr. Huebner: Shall I give you——

The Court: You can go ahead with your brief.

Mr. Huebner: All right. One reason I didn't file a trial brief is that rule has been more or less dormant here, unless counsel was asked by the court to do it, and I apologize for not having filed one in advance.

The Court: Plaintiff's attorney asked me if I would [47] like to have one and I said yes. I am quite sure if the defendants' attorney had asked the same question, they would have received the same answer.

Mr. Huebner: I will try to supply that same thought then in this statement.

Referring now, first, to the question of validity, wherein we attack the validity of the patent, we have several points, your Honor. The first point is this, that the description in the specifications and in the claims is inadequate, it is insufficient, and inadequate to properly explain the asserted inven-

tion as required by the law, and that the claims are uncertain and indefinite, ambiguous and functional, and that makes the whole patent invalid. The basis for that point is as follows: Revised Statutes, Section 4888, which is 35 U. S. Code 33, reads as follows, the pertinent part is as follows:

“Before any inventor or discoverer shall receive a patent for his invention or discovery he shall make application therefor, in writing, to the Commissioner of Patents, and shall file in the Patent Office a written description of the same, and of the manner and process of making, constructing, compounding, and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art or [48] science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same; and in case of a machine, he shall explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions;”

There is a semi-colon there. That relates to the descriptive part of a patent. Then the statute continues:

“and he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery.”

Way back in the early days, the Supreme Court explained the reason for those requirements in

Bates vs. Coe, 98 U. S. 31, 25 Law Edition 68, that an "accurate description of the invention is required by law, for several important reasons: (1) That the government may know what is granted and what will become public property when the term of the monopoly expires. (2) That licensed persons desiring to practice the invention may know, during the term, how to make, construct and use the invention. (3) That other inventors may know what part of the field of the invention is unoccupied."

They cited there another rather important early case, Gill vs. Wells, 22 Wall 27. [49]

Later on, in O'Reilly vs. Morse, there was a claim considered by the Supreme Court, which read as follows:

"I do not propose to limit myself to the specific machinery or parts of machinery described in the foregoing specification and claim; the essence of my invention being the use of the motive power of the electric or galvanic current, which I call electro-magnetism, however developed for marking or printing intelligible characters, signs, or letters, at any distances, being a new application of that power of which I claim to be the first inventor or discoverer."

Now, that claim was held bad. It was functional. It didn't particularly point out and distinctly claim the invention.

Another early case dealing with this doctrine that

the claims must be definite, clear, and unambiguous, which has been consistently followed by the Supreme Court, is *Merrill vs. Yeomans*, 94 U. S. 568, where they said at page 573:

“The developed and improved condition of the patent law, and of the principles which govern the exclusive right conferred by it, leaves no excuse for ambiguous language or vague descriptions. The public should not be deprived of [50] rights supposed to belong to it, without being clearly told what it is that limits the rights. * * * It seems to us that nothing can be more just and fair, both to the patentee and to the public, than that the former should understand, and correctly describe, just what he has invented, and for what he claims a patent.”

That case has been followed many times, and in the more recent case of the *Permutit Company vs. Graver Corporation*, 284 U. S. 52, at page 60, the Supreme Court made this statement:

“The statute requires the patentee not only to explain the principle of his apparatus and to describe it in such terms that any person skilled in the art to which it appertains may construct and use it after the expiration of the patent, but also to inform the public during the life of the patent of the limits of the monopoly asserted, so that it may be known which features may be safely used or manufactured without a license and which may not.”

The Court: Now, right there, may I interrupt and ask you a question?

Mr. Huebner: Yes, sir.

The Court: Assuming that is the law, and I know it is [51] rather dangerous at the beginning of a lawsuit to assume anything is the law, until we hear how it is applied, but assuming that is the law, has there been any case in which the claims of the Parker patent have been passed upon by the court?

Mr. Huebner: None that we know of. We have researched it. We do not find the Parker patent having been litigated to any decision.

The Court: Is that correct?

Mr. Freeman: That is correct, your Honor. This is the first one.

The Court: This is the first patent case on this?

Mr. Freeman: This is the first patent case involving this particular patent.

The Court: I thought maybe I might get out of deciding that point by bowing to the decision of some other court:

Mr. Huebner: By following a precedent. I will develop that, though, a little further, your Honor, because it comes right down to current date. The controversy of that type, so far as it applies to a product, was finally settled by the decision of the Supreme Court in *General Electric vs. Wabash Appliance Corporation*, 304 U. S. 364, in which Mr. Justice Reed, speaking for the court, said this:

“But the vice of a functional claim exists not only when a claim is wholly [52] func-

tional, if that is ever true, but also when the inventor is painstaking when he recites what has already been seen, and then uses conveniently functional language at the exact point of novelty.”

Going back, your Honor, I might say that a functional claim or a functional clause is language which says what the thing will do and not what it is. In other words, you have a structure. You have a body and a sleeve and a nut, and so forth. Our point, as it will develop during the trial, is that in the claims he talks about what those things will do and not what they are. He uses functional language to attempt to define the invention, and in so doing he has lost his entire monopoly.

The claim which was under consideration, or a typical claim under consideration in that case from which I just quoted related to tungsten filaments for incandescent lamps. The claim read as follows:

“A filament for electric incandescant lamps or other devices, composed substantially of tungsten and made up mainly of a number of comparatively large grains of such size and contour as to prevent substantial sagging and offsetting during a normal or commercially useful life for such a lamp or other device.”

That claim was thrown out by the Supreme Court. That [53] has a great deal of similarity to all three claims in the patent in suit. To go one step further, counsel may say that related to a

product claim and not to a machine or apparatus or a device such as these fittings.

That question was resolved in an apparatus claim in the case of Halliburton Oil Well Cementing Company vs. Walker, 329 U. S. 1, where the Supreme Court, speaking through Mr. Justice Black, stated as follows:

“The language of the claim thus describes this most crucial element in the ‘new’ combination in terms of what it will do rather than in terms of its own physical characteristics or its arrangement in the new combination apparatus.”

* * *

The General Electric and the Halliburton cases in holding the patent there involved to be invalid, emphasize that the violence done is in using functional language to describe the main feature of the invention, and that is just what they have done here. I may be confronted, your Honor, with a comment by my brother at the bar that I criticized this Halliburton case, and I did and I still do, so far as the general treatment was concerned, because I tried in the case of Faulkner vs. Gibbs, 338 U. S. 267, decided in November, 1949, to get the Supreme Court to set aside or overrule or clarify their Halliburton decision. They did not overrule [54] it. They did not set it aside, but they clarified it in the way we asked for in holding that a combination claim, such as involved in the Gibbs patent, was good and should be sustained, but they

did not overrule this earlier proposition that where you have a crucial element and you use functional language to define that crucial element, which is the crux of the invention, your patent is no good, so that law still stands.

The Court: What is the citation on the Halliburton case?

Mr. Huebner: 329 U. S., page 1. Of course, Halliburton is referred to in *Faulkner vs. Gibbs* in 338 U. S. 267.

The Court: 267?

Mr. Huebner: 267. Of the patents held invalid by the court, in spite of the patent officer examiner's rulings, there have been many reasons justifying it. For example, the patent examiners may have been in error in deciding that the claimed subject matter avoided the prior art and involved invention, or there may have been error in that the patent officer examiners may not have had before them citations of prior art which, if they had seen them, would have been the basis for rejection. In the present case, we have a book, which will be offered to your Honor, published in 1902, with a fitting illustrated in it, and the illustration of [55] 1902 looks exactly like the drawing in my friend's brief, which he says are Parker fittings, and which he says are also illustrative of the defendants' accused fittings. So the Patent Office didn't have before it that particular publication. If they had, I don't think they would ever have granted the patent. That is just another reason why the Patent Office could be in error.

Then, too, the Patent Office can be in error in accepting the claims as conformed, which they did in this case, because the claims were functional in character, and in such respect were broader than whatever invention, if any, Mr. Parker made.

There is one other possibility of invalidity of the patent, which we haven't fully explored, but which may develop during the trial. This patent may be invalid because claims were added. I will go back and explain that. The application for the patent was allowed with one claim. Mr. Parker apparently thought so little of it, although he had a lot of other things in the fire, that he didn't pay the required fee to the Patent Office and his patent application became abandoned. At that time there was a rule in effect that there was a right within one year after such abandonment to pay a new filing fee and have the application renewed. He did that, but in doing that, he was not satisfied with his one claim and he put in some other additional descriptive [56] matter in the specifications, and he also wrote two more claims and argued those. There is some law to the effect, and I will try to brief it before the trial is concluded or shortly thereafter, some law in effect where to add material later, to add claims, makes your whole patent invalid, because you have no right to do that under the rule giving you permission to revive.

The Court: Can I ask you a question?

Mr. Huebner: Yes, sir.

The Court: When you get permission to revive a patent, do you have, also, permission to do any-

thing you could do under the original application?

Mr. Huebner: I won't say categorically no, but I don't think so. It is a remote point, and the little bit of law I have been able to check on that would indicate that you can't do anything you could have done with the original, that when you add new matter or new claims, you change the character so that you are then seeking a patent for what they call a different invention.

The Court: All right. When the patent is granted under those circumstances, do your rights under the patent, under the one claim, for instance, revert back to the original filing?

Mr. Huebner: No, sir.

The Court: Or do they revert back to the amended filing [57]

Mr. Huebner: All claims revert back to what you call the amended filing, so the patent is either all bad or it is not hurt by that tactic.

The Court: I don't assume that opposing counsel will agree with the theory of the present counsel as to the amendment?

Mr. Freeman: Absolutely not, your Honor. We just followed the statute, the right provided for in the statute.

The Court: You know, if you just follow the statute, some court will tell you some day you are out on a limb because the statutes don't give you the rights that you might think.

Mr. Freeman: We think we had the absolute right. We paid the fee and we proceeded in the Patent Office in accordance with the rules and regu-

lations of the Patent Office, and those rules and regulations were in accordance with the then existing statute.

The Court: Is there any dispute then as to the facts?

Mr. Freeman: No. It shows on its face that the case was renewed.

The Court: The case was renewed?

Mr. Freeman: Oh, yes. It shows right on the face of the patent. [58]

The Court: Can you state to me, upon a renewal of the patent, do the rights thereunder revert back to the original filing?

Mr. Freeman: To the original filing date.

The Court: To the original filing date?

Mr. Freeman: Yes, sir.

The Court: Then you don't agree with Mr. Huebner?

Mr. Freeman: No, sir. It is the same as making an amendment. You can make an amendment from time to time, and if the claims are supported on the original showing of the application and the drawings, then you revert back to your initial filing date.

Mr. Huebner: Well, Rule 176 then in force of the Patent Office rules provided to the contrary.

The Court: That is a question we can thresh out during the course of the trial.

Mr. Huebner: Yes, but there are one or two cases dealing with it. [59]

The Court: I want to know whether or not there can be any agreement as to counsel on this matter.

Mr. Huebner: Only as to the facts, I guess.

Still talking about validity, when a plaintiff has a thin patent he usually tries to reinforce the presumption of validity—I say “reinforce the presumption of validity”—by showing several things. One of them is that there has been a wide commercial acceptance of the invention. That is proper proof if two conditions are met. First, if the thing which has been commercialized is identical with the patent and can stem from the patent; and, second, such proof is available, or at least should be considered by the court only when invention may be in doubt. If the court is firmly of the opinion that the patent did not involve invention, commercial use will not turn the scale in favor of the patent. It is just sort of a little tiny added weight that the court may give if he feels that otherwise the scales are balanced, and if there has been a wide commercial use of the exact thing of the patent, then he may say, well, that adds to the presumption and we will hold the patent valid.

The Court: Now, can I ask you a question right there? From the statement made by counsel it appears that there have been many parties who attempted to patent a fitting. Even Mr. Parker on many, many occasions attempted to perfect a fitting that would be entirely satisfactory. [60]

Mr. Huebner: Yes.

The Court: Finally they came around to this fitting which was immediately adopted by the trade or the manufacturers. Isn't that an indication that there was something new here that the trade recognized and started to use?

Mr. Huebner: Yes, as far as you go, your Honor, I would agree that the fact that it was adopted would indicate to some extent that it was a pretty good thing at that time, that is, what you are holding in your hand, or let us say, the Parker-manufactured fitting, but not the Parker patent. The physical thing manufactured by Parker under the Army, Navy, and Air Corps requirements would have to be satisfactory as of that date, or it wouldn't have been adopted. Perhaps it was promotional in part on the part of Mr. Parker, legitimate promotion, perhaps it was a good thing, but anyway that still doesn't help support the patent unless that thing is identical with the patent.

The Court: Can I break in just a minute and ask opposing counsel this question: You don't agree that the thing that you manufacture is not the thing that you describe in your patent?

Mr. Freeman: I certainly do not agree with them. It is our position, and we will show that the thing that I gave you, a Parker fitting, consisting of nut, body and sleeve with a piece of tube in it, follows exactly the Parker [61] patent in suit. I recognize that we must show that, and we are prepared to meet that burden, as I stated in my opening statement.

The Court: All right.

Mr. Huebner: Then the case I was going to cite is probably academic, but here is the point judicially ruled on:

“Commercial success to be proof of anything must be confined to the exact thing disclosed by the patent.”

Haggerty, et al., v. Rawlings Mfg. Co., 14 Fed. (2d) 928 at page 930, an Eighth Circuit Court of Appeals case.

The Court: I don't think there will be any question here from opposing counsel, that if you can show that the thing that was manufactured, or this little gadget I have here in my hand, is not the thing described in the patent, then the case just falls.

Mr. Freeman: That is a correct statement, your Honor, and we recognize that; and we recognize that the burden is upon us to show that the thing that you have in your hand, which I gave you, is the patent in suit.

The Court: So, Mr. Huebner, I don't think you are going to have to worry about proving that point. They are willing to admit that if you could prove that the thing they manufactured is not the thing they describe in the patent, then [62] they have no standing.

Mr. Huebner: Then my Supreme Court case that I was going to cite doesn't even need to be in the record, but if you want it for reference it is *Cuno Corp. v. Automatic Devices Corp.*, 314 U. S. 84 at page 93.

The next point that Mr. Freeman will probably try to use to reinforce, as he has indicated, the presumption of validity, is the showing of so-called acquiescence in the plaintiff's patent by proving three licenses that have been granted under the patent in suit. We are not going to stand on tech-

nicalities as to proof. If Mr. Freeman produces copies and represents here that these are true copies of three licenses which were entered into on their respective dates, and which are now in force and effect, we won't put him to proof of signatures and all that unnecessary data.

Mr. Freeman: They already have been made available to you in accordance with a request that we have them here, and they will again be made available to you.

The Court: Now, may I ask opposing counsel a question? I don't assume that you are going to contend, you may contend, but I don't assume that you are going to contend that because you allowed the defendants to manufacture these fittings, that they are now estopped from denying the validity of your patent?

Mr. Freeman: Not at all, no estoppel. We only make [63] the point that they recognized the contribution.

Mr. Huebner: We have seen, I have personally seen, a copy of a license to Pacific Screw Products. I have not seen one to the other asserted licensee, and I have not seen one to the Weatherhead Company, but we will be glad to look at them and let them go in. But that won't be enough. Just the pure paper with the typewriting on it won't mean anything.

To be of any value Mr. Freeman is going to have to show that the licensees are operating under those licenses, and that they are paying royalties under them. Just the granting of a license has no

valid effect. So he has got to show use under the licenses, to reinforce his so-called validity, and he has got to show that that use is the exact thing in one, at least, of the patents involved in the licenses.

The Court: Now can I ask a question? I am being educated at the expense of the attorneys, I guess. Supposing that I had a so-called patent upon a gadget, let's call it a gadget, and I went out to ten manufacturers and I licensed nine of them to manufacture it, the tenth I didn't license; now, can I prove my case by showing that I licensed nine, so as to affect the rights of the tenth?

Mr. Huebner: I am not sure that I get your Honor's thought. Can you prove your case——

The Court: You have raised the issue here that certain licenses have been given to what was it, Screw Products Company? [64]

Mr. Huebner: Pacific Screw Products Company.

The Court: Pacific Screw Products Company, and a half dozen other individuals.

Mr. Huebner: Two others. Three licensees.

The Court: All right. Can they show that they have licensed these three manufacturing companies under this patent to establish their rights against the defendants in this case?

Mr. Huebner: It is not as broad——

The Court: Are the defendants jeopardized in any way because this license was granted to these three other individuals?

Mr. Huebner: No, your Honor, not the way you have stated it. Maybe I can clarify it. The defendants are not jeopardized in any way at all because

of the granting by Parker of the other three licenses.

The Court: Can they introduce these other three licensees as an argument to substantiate the fact——

Mr. Huebner: As an argument to substantiate the fact that their patent is a good patent.

The Court: That is possible, is it?

Mr. Huebner: Yes, that is right, they have a right to do that. But it must be conditioned and qualified as follows: In order to make use of that point, which was merely another reinforcement of their patent, they have got to show, first, that the licensees are actually manufacturing under the [65] licenses and paying royalties.

The Court: Supposing they granted Pacific Screw Products Company a license, and they never manufactured at all?

Mr. Huebner: It wouldn't have any value at all from an evidentiary standpoint, it wouldn't have any probative value. Just the granting of a bunch of licenses doesn't mean a thing.

The Court: But the granting of the license would mean this, that the Pacific Screw Products Company recognizes the patent?

Mr. Huebner: No. The Pacific Screw Products Company, to use an exaggerated situation, might not even be in the business of making fittings, but might put its name to a piece of paper so that the plaintiff could say, "Well, we granted Pacific Screw a license," and corporations 1 to 10 could do the same thing, and not even be interested in the license.

The Court: Do you agree, Mr. Freeman, that you have to go as far as Mr. Huebner says, that is, prove that they actually manufactured?

Mr. Freeman: No, I don't think you have to prove that they actually manufactured, and I think it goes to the weight of the evidence or the credit that you give to those licenses. Now, of course, as he said, you could go out and license 100 companies, and if they never manufactured, never [66] paid a dime, never obligated themselves, then you might build up something that has absolutely no value as evidence. But we are prepared to show that in this case when they signed the agreements they obligated themselves for \$37,500 each. I am talking now about the cases here on the West Coast. And you do not obligate yourself to pay that kind of money——

The Court: Supposing they obligated themselves to pay that kind of money and they actually paid it, but they didn't manufacture it?

Mr. Freeman: That wouldn't make any difference. Incidentally, one of those companies that he is speaking of does manufacture. The other one for some reason, they got into a little income tax problem, and why they didn't go ahead, I don't know, but it goes to the weight.

The Court: You disagree, then, with Mr. Huebner's statement that you have to show not only do they pay the royalty, but that they manufacture? That is my understanding of his statement.

Mr. Freeman: He doesn't go that far.

Mr. Huebner: I say to have probative value for

their point, they must show manufacturing under the patent, and that the manufacture is of the exact thing covered by the patent.

The Court: We have all agreed if they can't show the thing manufactured was according to the claims in the patent, [67] they have no standing in this court. That not only goes to the Parker Company, but it goes to every other company. Of course, if you can show that the thing that you manufacture is not according to the patent, then I don't think they can get a judgment against you. That is really one of the main issues in this case.

Mr. Huebner: Yes, it is one of the two main issues. It is enough of a main issue that if the court were to decide we don't infringe, that could dispose of the case. But unfortunately the District Courts are enjoined nowadays to decide, also, whether the patent is valid or invalid.

I don't, sometimes, like the necessity of it, but the higher courts have suggested that there should be a decision on validity or invalidity, also, for the benefit of the public. But that is another question.

The Court: I think the upper courts want to give the litigants a reason for appealing.

Mr. Huebner: Now, there is one further burden that Mr. Freeman will have in connection with his licenses. He is going to have to answer this point of law, and maybe it will involve fact. These licenses, the one I have seen, at least, is granted under three patents, the one in suit and two other patents, and it says, also, that the licensees get improvements.

Since that date some more patents have come out, so that [68] before we are through we will probably show those licenses were granted on half a dozen or more different patents. Now, that doesn't help him one iota, because the Second Circuit Court of Appeals has said this:

I don't have the exact language, but this is the point:

“Where license agreements offered as evidence of commercial success extend rights under other patents, as well as the patent in suit, it cannot be successfully urged that the commercial success upon which the plaintiff relies is ascribable to the patent in suit.”

Cleveland Trust Co. v. Osher & Reiss, 109 Fed. (2d) 971. Mr. Freeman, I think, participated in that.

The Court: How much longer are you going to take on your opening statement?

Mr. Huebner: I should like to have, your Honor, another fifteen or twenty minutes. I had it figured for about an hour or about 50 minutes, but I didn't think that we would have so much general discussion, but I welcome it.

The Court: I think if you are going to take another 15 or 20 minutes that we had better continue after recess. So we will now stand recessed until 2:00 o'clock this afternoon.

(Whereupon, at 12:00 o'clock noon a recess was taken until 2:00 o'clock p.m. of the same day.) [69]

June 14, 1950—2:00 P.M.

The Court: You may proceed.

Mr. Huebner: I would like to refer to one final point on the question of validity and then mention a few things in connection with infringement. The plaintiff urges by way of reinforcing this question of validity that the patentee, Mr. Parker, solved a long felt want that had confronted the industry for many years. That is an exaggeration. In the first place, the fittings had been known for many years and they were satisfactory. The Air Corps had had one type of a fitting for their hydraulic systems in airplanes, and the Navy had had another kind of a fitting, and they all worked, the planes flew, and the accident rate was no worse than it was after the so-called AN standard was adopted. But the government decided it would be better to have all parts interchangeable between all the planes of all the forces, all the military forces, so they adopted this AN standard. It was not Mr. Parker who made the AN standard or who solved a longfelt want. The longfelt want did not exist, because fittings had been available in various forms to perform the functions. It was merely a standardization program that gave Mr. Parker, who had the manufacturing facilities, an opportunity to plunge in, and he manufactured for the government all he could to the extent of his facilities, [70] and there were planes sitting on the ground waiting to have these new standard designs put in, and he couldn't make enough of them, so he was compelled

to acquiesce in another two or three hundred manufacturers supplying the government.

That wasn't any nice attitude on his part. It was simply that he had no alternative.

The Court: Well, the government could have taken over his patent and paid him for it.

Mr. Huebner: The government could have done that.

The Court: And then could have passed out this license to everybody, if they wanted to.

Mr. Huebner: Well, that was not the way they preferred to operate it.

The Court: There is no question the government could have taken it, if they wanted to pay for it.

Mr. Huebner: Yes, the government could either take it and pay for it under the agreement, or the government could say to its contractors, "You furnish these things to me and let the patent owner have resort to the Court of Claims."

As I say, there were lots of fittings available. The Germans flew pretty good planes and they didn't have Mr. Parker's patent or a Parker fitting made by whomever it might have been. As a matter of fact, I think the evidence will show, if it comes up, that the German planes used a flareless type fitting, a good many of them did, and even our [71] own aircraft industry today is seriously considering going over to that type of fitting, so that the Parker so-called fitting, which was actually a government standard, was no panacea. [72]

All right. Now, actually the standard fitting which was adopted from a drawing standpoint and

illustration doesn't look any different from the one I am holding up to your Honor, and which will be later offered in evidence. This fitting here, for example, has a body on which there is a nose. Mr. Freeman has seen this, I assume. It is pleaded in the answer. This illustration is half in cross-section of a complete assembly. If you duplicated this part down below, you would have a cross-section of a complete assembly. So here you have a body, which is threaded on the outside, here you have a flared tube colored yellow, which is seating against the tapered part of the body. Here you have a sleeve, which has a shoulder on it, and also a flared tapered countersink to fit against the flare of the tube. And coacting with the sleeve, contacting at the shoulder, you have a nut shown in blue, which is engaged with the body, and when you tighten it up you get a fitting.

If you look at the drawings in Mr. Freeman's trial brief, which he says followed the patent, and are the same as that manufactured by everybody, and you look at this, you won't see much difference. This was known in 1902.

Now, to the question of infringement. First of all, plaintiff must show that the defendants in this case manufactured and sold complete fittings, which are substantially identical to the structures defined in the claims of the [73] patent. The evidence will actually show that the defendants didn't make complete fittings, they made merely parts. For the convenience of the court and to illustrate the points that are necessarily involved, both counsel for plain-

tiff, I presume, and counsel for defendants, will submit drawings showing complete assemblies. That is for the purpose of illustrating the cooperative relationship of the several parts that have been made for the purpose of assembling. But the use of those drawings on our part will not be an admission that our clients have ever made and delivered assemblies as such. They must take the burden now of showing that we have done that in order to sustain—it is one of the things that they have to do to sustain their contention of infringement.

Moreover, comparison of the defendants'—I will just hit this briefly—comparison of our commercial devices with the commercial Parker fittings is not relevant or material, and does not constitute the test as to whether or not we have infringed.

There is lots of authority for that.

I don't believe it is even necessary to be cited, but I have here one quotation from the Eighth Circuit Court of Appeals:

“In considering the question of infringement we must compare the accused product or device with [74] the teaching of the patent in suit as disclosed by the specification and claims, rather than with plaintiff's commercial device.”

S. S. Kresge vs. Davies, 112 F. (2d) 708.

In construing the Parker patent it must be borne in mind that the claims measure the invention. That is an axiomatic rule that I am sure there will be no dispute on.

It isn't the specifications. That is the descriptive

part of the patent which defines a contract. That gives you the background by which you interpret the claims, and it is the claims and each one of them taken separately which is the measure of the invention, if any.

Now, the limitations in the claims, that is, the restrictive features or descriptive parts of the claims, must be carefully regarded. That is particularly true where the claims were amended by insertion of these limitations during prosecution of the application in the Patent Office. And reference will be had during the trial to what we call the file wrapper, as I mentioned a while ago, showing the case as it was originally presented to the Patent Office, the changes that were made, and the whole history, so that everything in those claims that was inserted by limitation must be doubly scrutinized.

It is axiomatic, also, that when a patent applicant cancels claims or amends them in response to a rejection by the [75] Patent Office examiner, and thus limits his claims to specific features, he can never hold as an infringement the subject matter which was rejected and canceled.

There is a doctrine which will probably be brought up, known as the doctrine of the range of equivalents. That is to say if the accused device does substantially the same thing by substantially the same means in substantially the same manner as the claims of the patent, it would be an infringement. That is the doctrine. But that doctrine is variable according to the advance made by the

patentee in the art. If his invention is broad, he is entitled to a wide range of equivalents. That is, more variation in the allowable substitutions of parts. But if his invention is narrow, as this one is, extremely narrow, if there is invention, a very minor step forward, the range of equivalents will be narrow, and in the present case is so limited that only an identical copy could possibly infringe, even if the patent is valid, and we do not have an identical copy.

It is further axiomatic that every element as described in the claims of the patent must be found in the accused device if infringement is to be **held**. If any element be omitted or any element be different than as described in the claims of this Parker patent, the defendants' device should be held not to infringe.

Now, getting to the next part in connection with infringement, [76] I want to refer for just a moment to contributory infringement. This involves the principle that he who manufactures only a part of the patented structure or combination, knowing it to be intended for incorporation with other parts which will finally result in an assembly or a completion of the patented item, is guilty of contributory infringement. That is the general rule.

It has been more or less waived aside by the Supreme Court recently, but there is no direct holding ruling out the principle, so we may consider it for a moment. The reason for it is this: There can be no contributory infringement unless there is a complete infringement proved.

I don't know what type of evidence the plaintiff may offer in that connection, but if he merely shows that our clients have manufactured isolated parts, even though they may know that those parts were to subsequently be assembled by someone, he can't prevail in this case; he has got to show, in order to even sustain this case, that there was a completion of the infringement somewhere by someone.

Now, in connection with contributory infringement we come to the final point that I would like to mention at this stage of the trial, and that is again the abuse of the patent rights.

There is law to the effect that the patent rights have been abused by the plaintiff in the very act of filing and [77] pressing to trial these two suits for infringement against contributory [78] infringers.

It may be good law, it may be bad, but there is law in this district to that effect. Before the trial started, I handed to counsel for the plaintiff a photostatic copy of a decision reported in the Patent Reporter, and I would like to offer to your Honor a copy, because the case is not reported in the Federal Reporter. I refer to *Stroco vs. Mullenbach*, and others, decided July 25, 1944, by Judge Hollzer, then District Judge of this district.

In that case, the plaintiff had sued some parties who made parts, knowing they were going to go into an assembly which would have ultimately infringed, and the defendants even gave directions as to how the purchaser could finally put the thing together and make what would be then under the

patent. Judge Hollzer said, "You have no right to do that and remain here in court."

There was a motion brought for a summary judgment, a motion brought by the defendants for a summary judgment. Judge Hollzer first denied the motion, and then came down the *Mercoid* decision. I had better cite that for the record. That is *Mercoid vs. Mid-Continent Investment Company*, 88 Law Edition 272, and *Mercoid vs. Minneapolis-Honeywell*, 88 Law Edition 273. Those are leading cases on this doctrine of abuse of patent where contributory infringers and licensees who make only parts of the thing are involved. So Judge Hollzer first denied that motion, and then came down [79] these Supreme Court decisions, and the motion was renewed, and Judge Hollzer then said under the ruling of the *Mercoid* decisions, he would dismiss the complaint, because the plaintiff had abused the patent right by bringing suit against contributory infringers.

So it may be that in this case here, before we are through with the evidence, the circumstances will be such that this court could, under the authority of the decisions cited, consider dismissing this complaint.

The Court: You may call your first witness.

Mr. Freeman: I should like to offer in evidence as Plaintiff's Exhibit No. 1, a copy of the **Parker** patent in suit, Patent No. 2,212,183.

The Court: It may be received.

The Clerk: No. 1.

(The document referred to was received in evidence and marked as Plaintiff's Exhibit No. 1.)

Mr. Freeman: I should like to offer in evidence as Plaintiff's Exhibit No. 2, a catalog of the defendant Irvin W. Masters, Inc., dated 1946. This is a catalog which was furnished to me in response to a request for literature put out by the defendant.

The Court: It may be received.

The Clerk: No. 2. [80]

(The document referred to was received in evidence and marked as Plaintiff's Exhibit No. 2.)

Mr. Freeman: I should like to offer in evidence as Plaintiff's Exhibit No. 3 a catalog of the Collins Engineering Company, which was furnished to me in response to a request to the defendant Collins Engineering Company and which during the taking of the pre-trial deposition was identified as Plaintiff's Exhibit No. 11, but I should like to offer it in this case as Plaintiff's Exhibit 3.

The Court: It may be received.

The Clerk: No. 3.

(The document referred to was received in evidence and marked as Plaintiff's Exhibit No. 3.)

Mr. Freeman: I should like to offer in evidence as Plaintiff's Exhibit No. 4 a catalog of the Collins Engineering Company, which was likewise furnished to me in response to an inquiry or request made that the defendant produce literature. At the pre-trial, it was identified as Plaintiff's Exhibit 12.

I should like to offer it in evidence here as Plaintiff's Exhibit 4.

The Court: It may be received.

The Clerk: No. 4.

(The document referred to was received in evidence and marked as Plaintiff's Exhibit No. 4.)

Mr. Freeman: I should like to offer in evidence as [81] Plaintiff's Exhibit No. 5, a Masters No. 8 aluminum fitting which likewise was furnished to me by the defendant Masters in response to a request as to what Masters manufactured and sold.

The Court: It may be received.

The Clerk: No. 5.

(The article referred to was received in evidence and marked as Plaintiff's Exhibit No. 5.)

Mr. Freeman: I should like to offer in evidence as Plaintiff's Exhibit No. 6 a Masters fitting, size No. 4. This, too, was furnished to me by the defendant Masters.

The Court: It may be received.

The Clerk: No. 6.

(The article referred to was received in evidence and marked as Plaintiff's Exhibit No. 6.)

Mr. Freeman: Incidentally, Plaintiff's Exhibit 6, I have left the parts not screwed together, not fastened together.

I am going to offer as Plaintiff's Exhibit No. 7 a Masters No. 4 fitting, together with a small piece of tube therein, assembled, and thereafter partially cut in half or in section for illustrative purposes. The

exhibit, that is the coupling itself or fitting, corresponds or is like Plaintiff's Exhibit 6.

Mr. Huebner: Your Honor, I have no objection to the [82] physical structures and do not question that they were parts supplied by Masters in connection with the deposition. By my silence, however, I wish not to be construed as conceding that they were manufactured, assembled, and sold as assemblies in commercial operations. These are parts that were brought together.

The Court: I understand that. This is just being done for the illumination of the court.

Mr. Huebner: As long as that is clear, then I won't offer any objection to the parts as such.

Mr. Freeman: You do not deny the fact that Masters illustrates and Offers for sale complete assemblies and shows them in his catalog as complete assemblies? I am now referring to Plaintiff's Exhibit No. 2.

Mr. Huebner: I can't answer that until I look at the exhibit.

The Court: It may be received.

The Clerk: No. 7.

(The article referred to was received in evidence and marked as Plaintiff's Exhibit No. 7.)

Mr. Freeman: I am going to offer as Plaintiff's Exhibit No. 8 a Masters fitting, which was furnished to me by Mr. Masters during the taking of his deposition, to which has been added a small piece of flared tubing, and cut in half for illustrative purposes. [83]

The Court: It may be received.

The Clerk: No. 8.

(The article referred to was received in evidence and marked as Plaintiff's Exhibit No. 8.)

Mr. Freeman: I want to offer as Plaintiff's Exhibit No. 9 a Collins fitting which comprises the nut, body, and sleeve, which was furnished to me by Mr. Collins during the taking of his pre-trial deposition. It was then referred to as Plaintiff's Exhibit 15 for identification.

The Court: It may be received.

The Clerk: No. 9.

(The article referred to was received in evidence and marked as Plaintiff's Exhibit No. 9.)

Mr. Freeman: Incidentally, Plaintiff's Exhibit No. 9, I think, is size No. 4.

I should like to offer in evidence as Plaintiff's Exhibit No. 10 a similar Masters fitting, which has been assembled and cut in sections for illustrative purposes.

Mr. Huebner: Did you mean Masters or Collins?

Mr. Freeman: Collins.

The Court: It may be received.

The Clerk: No. 10.

(The article referred to was received in evidence and marked as Plaintiff's Exhibit No. 10.)

Mr. Freeman: As Plaintiff's Exhibit No. 11, I want to [84] offer a Collins fitting furnished to me by Mr. Collins during his pre-trial deposition, identified then as Plaintiff's Exhibit No. 13.

The Court: It may be received.

The Clerk: No. 11.

(The article referred to was received in evidence and marked Plaintiff's Exhibit No. 11.)

Mr. Freeman: What is your Honor's pleasure with regard to pre-trial depositions? Do you want any part of them read? Do you want them briefed?

The Court: Not necessarily. If you want to use them in the trial, you should put them in at the proper time. Are you ready for your pre-trial depositions?

Mr. Freeman: It goes right along with these first exhibits that I produced. They are the pre-trial depositions or adverse depositions of the defendants Collins and Masters.

The Court: Is there going to be any objection to the depositions?

Mr. Huebner: I think there are no objections to the depositions. The only objections might be such as are directed to particular questions asked during the taking, and as will show in the transcript of the depositions. There has been no notice served on us of filing, but I understand——

Mr. Freeman: These have been filed.

Mr. Huebner: I understand there was agreement between [85] my partner, Mr. Bechler, who was present, and Mr. Freeman, that they could be available if either party wanted to file them.

The Court: If there is no objection to the depositions, why not just introduce the depositions in the record and I can read them at leisure.

Mr. Freeman: Then I should like to introduce and offer in evidence as Plaintiff's Exhibit No. 12, the deposition of Irvin W. Masters taken at Los

Angeles, California, on July 11, 1949, as Plaintiff's Exhibit No. 12. It is understood that it has the same effect as though it were read in open court.

Mr. Huebner: I don't think our stipulation to that effect is necessary. It is whatever the court's pleasure is.

The Court: I can read the depositions and you can save the time of reading them in open court.

Mr. Huebner: I think that is much better.

Mr. Freeman: I should like to offer in evidence as Plaintiff's Exhibit 13 the deposition of Joseph C. Collins, one of the defendants here, taken in Los Angeles, California, on July 12, 1949.

The Court: It may be received.

The Clerk: No. 13. [86]

(The depositions referred to were received in evidence and marked as Plaintiff's Exhibits 12 and 13.)

Mr. Freeman: I understand that the originals of these depositions are already in and I am really offering my copies. I am wondering if we might substitute and have the two that were filed in court marked with the exhibit numbers so that I will have a copy.

Mr. Huebner: No objection on our part.

The Court: If we have got them here, we will be glad to do that. I assume they are here. There isn't going to be any argument in this case about the materials that were used in the fittings, is there?

Mr. Huebner: As far as we are concerned, no. We think that whatever material is called for, whether it is in the prior art or whether it is in the

patent in suit or whether it is in these, doesn't make any difference as far as the patentability goes. I don't know what Mr. Freeman will say. [87]

Mr. Freeman: Well, I go along with the statement that as to whether the particular fitting, that is, the body, the sleeve, and the nut are made of dural metal, or aluminum, or iron, is of no consequence, patentwise.

The Court: There is no question in this case about the legal capacity of the defendants, is there? Is Irvin Masters a corporation?

Mr. Huebner: Yes, your Honor.

The Court: No question about that?

Mr. Huebner: Not by either of us.

The Court: There is no question that Collins is doing business under the firm name of Collins Engineering Company?

Mr. Huebner: Not on our side.

Mr. Freeman: There is no question but what both are within the jurisdiction of this court.

Mr. Huebner: Yes, they are both within the jurisdiction.

Mr. Freeman: In connection with the Masters deposition, we then offered in evidence as Plaintiff's Exhibit 10 a letter from Mr. Masters to the purchasing agent of Republic Aviation Corporation, dated April 27, 1949, and Mr. Masters has a copy, or his counsel had a copy of the letter, and I should like to offer it now as Plaintiff's Exhibit No. 14, along with the Masters deposition.

Mr. Huebner: Will you wait just a minute, please?

Mr. Freeman: Yes. [88]

The Court: The clerk suggests that we make that 12-A, if it is part of the Masters deposition.

Mr. Freeman: It is part of it.

The Court: Make it 12-A, instead of 14.

Mr. Huebner: I believe in the deposition, your Honor, that this letter was only marked for identification, and I would object to its introduction now on the ground that it is irrelevant and immaterial.

The Court: Supposing you have it marked for identification.

Mr. Freeman: All right, as Plaintiff's Exhibit 12-A.

The Court: For identification.

(The document referred to was marked Plaintiff's Exhibit No. 12-A for identification.)

Mr. Freeman: I am wondering if Mr. Masters has been able to produce any of the letters, or any of the correspondence that we asked him to produce at the time of the taking of our pre-trial deposition.

Mr. Huebner: Mr. Masters has gotten together whatever he could find. Do you have any specific requests?

Mr. Freeman: They are right in the record, and I was assured that he would check and they would be made available to me.

Mr. Huebner: We will see what we can find in our briefcase, if we may have the court's indulgence. [89]

(Slight delay in proceedings.)

Mr. Huebner: Of the papers asked for, Mr.

Freeman, we will now produce for your inspection all that Mr. Masters could locate. A letter from Parker Appliance to Irvin W. Masters, dated November 13, 1945. There is an earlier letter from Parker Appliance Company to Mr. Masters, dated December 3, 1943. Attached to that is a carbon copy of a letter from Irvin W. Masters, Inc., to the Army Air Forces, dated December 9, 1943. And another letter from Parker Appliance dated July 19, 1946, to Irvin W. Masters, Inc.

Mr. Freeman: Among the letters that you gave me there seems to be missing, at least the letter of August 12, 1943, which has to do with a release of detailed prints, addressed to Irvin W. Masters, 3035 Andrita Street, Los Angeles, California, attention Mr. George E. Blake. And if you recognize that as Mr. Blake's signature I should like to offer a copy of that letter with leave to substitute a photostat.

Mr. Huebner: This appears to be a true photostatic copy of an original.

Mr. Freeman: We offer in evidence as Plaintiff's Exhibit 14 a letter from the Parker Appliance Company to Irvin W. Masters, dated August 12, 1943, entitled "Release of Detailed Prints," and ask leave to substitute a photostat.

Mr. Huebner: No objection to the photostat, your Honor. I would like to request counsel to furnish us photostats of [90] any of these letters he puts in, because we don't have them.

Mr. Freeman: Your request has already been made known and you have your copy.

Mr. Huebner: Thank you. However, as far as the contents of the letter is concerned, this goes not to the substitution of the copy, but to the contents, I am bound to object to it on the ground that it is not shown to be relevant or material.

The Court: Objection is overruled. I can't tell you whether it is relevant or material yet.

Mr. Freeman: We will connect up, I assure your Honor, the letter with the prints involved.

The Court: It will go in subject to a motion to strike.

(The document previously marked Plaintiff's Exhibit No. 14 for identification was received in evidence.)

Mr. Freeman: I should like to offer in evidence as Plaintiff's Exhibit 15 the letter of Parker Appliance Company, dated December 3, 1943, to Irvin W. Masters, which has been furnished to me by the defendant in response to my request, and ask leave to substitute photostats.

Mr. Huebner: No objection to the photostats being substituted.

The Court: It may be received.

(The document referred to was received in evidence and marked Plaintiff's Exhibit No. 15.)

Mr. Freeman: I take it, Mr. Huebner, we can retain these [91] exhibits, take them out and have them photostated, and bring them back here in the morning?

Mr. Huebner: I would like if you would do that, if we have the court's permission.

The Court: It is all right.

Mr. Freeman: I actually have a photostat of the contents of that letter, but it is not on a letterhead. It happens to be a photostat of our carbon copy from our own files. I will make that available now just for immediate use by the court and the defendant, and will later substitute a photostat of the original.

The Court: May I break in and ask a question?

Mr. Freeman: Yes.

The Court: In regard to your Exhibit 14, which is a letter to Irvin W. Masters from The Parker Appliance Company, you say: "In the interest of war effort these drawings are released to you in order that you may manufacture the products illustrated therein. It is understood that the permission herein given is limited to the particular parts shown on the enclosed drawings.

"We consent to the manufacture by you of the items illustrated on the enclosed drawings without royalties subject to the following arrangements:

"1. This arrangement is to remain in effect for the duration of the present war and is to [92] terminate upon cessation of hostilities."

Is there going to be any argument here as to whether or not the war has terminated?

Mr. Huebner: Yes, your Honor.

Mr. Freeman: It says "cessation of hostilities."

Mr. Huebner: There has been no final peace treaty.

The Court: "This arrangement is to remain in effect for the duration of the present war * * *"

My understanding is that the war has never officially terminated.

Mr. Huebner: That is mine, and I intended to argue that at the close.

Mr. Freeman: Even if his position were correct that the war has not ended, the permission then was granted for use in governmental use, and not for civilian use or ordinary commercial sale of these devices.

The Court: That is not what this letter says. We are bound by the agreement that was made, not by a subsequent interpretation.

“We consent to the manufacture by you of the items illustrated * * * subject to the following arrangements:

“This arrangement is to remain in effect for the duration of the present war and is to terminate upon cessation of hostilities.”

I don't think there is any question as to what is meant by the duration of the war, and I think there are a number [93] of decisions to the effect that the present war has never been terminated. There may be some question as to what is meant by “cessation of hostilities.”

Mr. Freeman: Of course there isn't any question and I think we know what we mean by “cessation of hostilities,” and we are in that particular situation at the moment.

The Court: I may know what I mean, but I don't know what the courts mean.

Mr. Freeman: The defendant in this case has not pleaded that they have a license. If they want

to come in here and plead they have a license, that is all right, too. They haven't pleaded that. They want to be in position to jump either way. If they want to plead they have a license, that is another thing. They haven't so pleaded. [94]

The Court: Well, if they plead they have a license, then they are agreeing that you have the authority and the right to give them a license.

Mr. Freeman: And they are taking it under our patent and should be estopped on the question of validity. They ought to get on one way or——

The Court: Isn't it the rule in federal court that you can have as many inconsistent defenses as you can dream of?

Mr. Freeman: Except the question of estoppel arises in connection when you are a licensee. Then let's go one step further, your Honor. If we get into that phase of contract law, then the question of consideration is the determining factor, and if we granted them a license to operate during the actual shooting war, as we did there, then we certainly have the right to revoke that license, and it was revoked on December 1, 1945.

The Court: Well, as far as consideration is concerned, I think that you set forth your consideration, "in the interest of the war effort."

Of course, the war isn't over with yet. We are in a so-called phase of the war. We call it a cold war. but it seems to me that the cold war is harder to get over with than the hot war was. But I am trying to determine the issues, if I can, and this is going to be an issue, I assume, the interpretation

of [95] your agreement with Masters and with Collins.

Mr. Freeman: We never had any with Collins.

The Court: You didn't have any with Collins?

Mr. Freeman: No. There was no letter or permission given to Collins.

The Court: Then could I ask the attorney for Mr. Collins, are you contending that Mr. Collins has any more right or any less right than Masters? These cases were consolidated for trial.

Mr. Huebner: Yes.

The Court: Masters has been given a special permit, a special license, a special agreement. Collins has kind of come in the back door.

Mr. Huebner: Collins came in apparently under the general attitude of acquiescence on the part of the plaintiff.

The Court: What I am trying to find out is, are you now going to contend that Collins is in any better position to resist the plaintiff than Masters?

Mr. Huebner: May I consult with a gentleman here who may know a fact that is pertinent?

The Court: Yes.

(Short interruption.)

Mr. Huebner: As well as I can be informed at the moment, your Honor, I would agree with Mr. Freeman that Collins [96] did not receive a letter of permission. Now, that might place Collins Engineering in a different defensive position than Masters. In other words, Masters may be in a position where he can have those inconsistent defenses

and maybe Collins can not. I don't know at the moment.

The Court: Can we proceed along this line, that I can consider Masters and Collins as one defendant until you point out to me or until you say to me you think Collins is in a better position than Masters?

Mr. Huebner: Or vice versa.

The Court: Or vice versa?

Mr. Huebner: I should think that would be proper.

The Court: In other words, unless you raise the issue, I am going to consider Masters and Collins as one defendant.

Mr. Huebner: Very well, your Honor.

The Court: And as the case progresses, if you think the evidence shows they are not in the same basket, then you can let me know and we will separate them.

Mr. Huebner: All right, your Honor.

The Court: Excuse me for breaking in.

Mr. Freeman: I should like to offer in evidence as Plaintiff's Exhibit 15-A the letter from Masters, Inc., to the Army Air Forces with respect to the prints referred to in the letter of December 3, 1943, in evidence [97] as Plaintiff's Exhibit 15.

The Court: It may be received.

The Clerk: 15-A.

(The document referred to was received in evidence and marked as Plaintiff's Exhibit 15-A.)

Mr. Freeman: I should like to offer in evidence

as Plaintiff's Exhibit 16 the letter of Parker Appliance Company to Irvin W. Masters, dated November 13, 1945, entitled "Revocation of Permission Heretofore Granted Parker Patents," and as part of the photostat which I am offering is a return receipt of the United States Post Office, signed by Irvin W. Masters, by someone in his employ.

The Court: It may be received.

The Clerk: No. 16.

(The document referred to was received in evidence and marked as Plaintiff's Exhibit 16.)

Mr. Freeman: May I ask permission of the court, with the consent of the defendants, to furnish the prints which are referred to in these letters I have just offered so that the letters and the prints will be attached?

Mr. Huebner: You mean the prints of the drawings referred to?

Mr. Freeman: Yes.

Mr. Huebner: Oh, yes. We should like to see them.

Mr. Freeman: Oh, certainly, certainly. I should like [98] to offer in evidence.—

The Court: Before you go any further, I want to ask a question. I might be able to clarify another situation. The defendant in this case is a corporation. The permission was granted to Irvin W. Masters as an individual. The revocation was to Irvin W. Masters as an individual. Are you going to raise any issue as to the fact that the defendant is a corporation and the permission and the revoca-

tion were directed to the individual, rather than the corporation?

Mr. Huebner: That catches me a little bit unprepared, your Honor, because I hadn't seen this letter before. The letter in question is one that Mr. Masters had not located. I hadn't seen it and I haven't reflected on that possibility.

The Court: May I ask Mr. Freeman, is there any question in your mind as to the fact that this permission and the revocation were granted to the individual or directed to the individual, rather than the corporation?

Mr. Freeman: Certainly directed to the individual, and if they take the position they have a license, the license is not assignable without special consent.

The Court: I am trying to find out what the issue is going to be.

Mr. Freeman: That leaves the Masters Corporation as such in exactly the same position as Collins.

Mr. Huebner: It may or may not. Mr. Masters was operating as an individual and in about 1942 turned it into a corporation, but it was a family deal. It was merely a change of the form of doing business. So I don't know at the moment what our legal position will have to be. It may be that he was entitled, that is, he as a corporation was entitled to succeed to whatever benefits may have been conferred upon him as an individual.

The Court: You might contend the corporation never did receive a letter of revocation, because it

was addressed to the individual and not to the corporation.

Mr. Huebner: Yes.

The Court: But, on the other hand, Mr. Freeman may contend that the corporation never did have permission, that it was Mr. Masters himself who had the permission.

Mr. Huebner: That is something we are going to have to think about tonight since we have seen this correspondence, your Honor.

The Court: Well, it might simplify matters and it might not simplify matters if Masters as an individual could be considered the same as Masters, the corporation, just the same as Masters and Collins could be considered as one. But, on the other hand, Mr. Freeman has stated now the corporation does not have a formal permission. Consequently, if they don't have a formal permission, then they are in the same boat as Collins, because Collins is working without formal permission. [100] You might think this matter over and tomorrow, or next week, you might come up with some solution. I don't know. It may affect this case very vitally.

Mr. Huebner: It can, your Honor. I will think about it.

The Court: Excuse me for breaking in, but as the points come up, I like to try to clarify the issues, if I can.

Mr. Freeman: I should like to offer in evidence as——

The Court: By the way, did you offer those prints you were talking about?

Mr. Freeman: I talked about them and I want to gather together all the prints that are referred to in those letters, and with Mr. Huebner's consent and with the court's consent, we are going to fasten them on so that they can go in as complete exhibits.

Mr. Huebner: I assumed in due time you would add those.

Mr. Freeman: At this time, I should like to offer in evidence as Plaintiff's Exhibit 17 the drawings or prints furnished to me by Collins on July 12, 1949, during the taking of his depositions in response to my request that he furnish to the plaintiff the active prints which he now uses or used at that particular time, shortly prior to 1949, for the making of bodies, nuts, and sleeves. These drawings were [101] given to me at the time of the taking of the depositions, and the court reporter then initialed each of the drawings.

Mr. Huebner: I just want to see what they are, if I may.

Mr. Freeman: Surely.

The Court: While you are examining those documents, may I suggest that if you have got any other documents, that you ask him to examine them during the recess?

Mr. Freeman: These were furnished to us by the other side and I thought they would have their own copies.

Mr. Huebner: We probably have, your Honor, but we didn't know for sure what he was going to use, and there is a bunch of them here that have to be identified so we can assemble them properly.

The Court: While you are assembling those, we will take our afternoon recess. We will now recess until 15 minutes after 3:00.

(Recess.) [102]

Mr. Freeman: Could I get the reporter to read back just a little?

The Reporter: Exhibit 17 is in process.

Mr. Freeman: I offer as Plaintiff's Exhibit 17 a booklet of prints furnished to the plaintiff by the defendant Collins, entitled "Collins Active Prints." These prints were furnished us during the pre-trial deposition of Collins on July 12, 1949. They are offered as Plaintiff's Exhibit No. 17.

The Court: Admitted in evidence.

(The document referred to was received in evidence and marked Plaintiff's Exhibit No. 17.)

Mr. Freeman: I should like to offer as Plaintiff's Exhibit 18 a group of blueprints furnished to the plaintiff by Irvin Masters as the active prints of the defendant Masters.

The Clerk: No. 18.

The Court: It may be received.

(The document referred to was received in evidence and marked Plaintiff's Exhibit No. 18.)

Mr. Freeman: At this time we would like to call Mr. Wagner of Parker Appliances as a plaintiff's witness. [103]

CHARLES H. WAGNER

called as a witness by and on behalf of the plaintiff, having been first duly sworn, was examined and testified as follows:

The Clerk: Your name, sir?

The Witness: Charles H. Wagner, Jr.

Direct Examination

By Mr. Van Sciver:

Q. Mr. Wagner, would you state your residence?

A. 1295 Hereford Road, Cleveland Heights, Ohio.

Q. You are a vice president of the Parker Appliance Company, the plaintiff in this suit, and owner of the patent in suit? A. Yes.

Q. How long have you been employed by Parker Appliance Company?

A. Since January of 1941.

Q. Will you state the background and present business of the Parker Appliance Company?

A. The Parker Appliance Company was started by Arthur L. Parker in 1924. He began the manufacturing of fittings, and that has remained the major portion of our business down through the end of the war years until about two years or so ago. The Parker Appliance Company also makes a line of precision valves. These valves are used in both industry and in [104] the aircraft field. The company also makes a line of synthetic rubber products. We have presently two manufacturing plants, one in Cleveland and one in Los [105] Angeles.

(Testimony of Charles H. Wagner.)

Q. Is one of the large or major parts of the Parker Appliance business today the manufacture of fittings?

A. I would say that it accounts for approximately one-third of the business.

Q. Does Parker Appliance Company sell its fittings to aircraft companies in the Los Angeles area?

A. Yes.

Q. Does the Parker Appliance Company do research and development with respect to aircraft fittings?

A. Yes.

Q. Has it done so for some time?

A. I think that the Parker Appliance Company, within my knowledge, and certainly much before that, at least ever since I have been there, has carried on extensive development work both in fittings and valves.

Q. Does the Parker Appliance Company have an engineering department which works on fittings?

A. Yes, we have quite a large engineering department.

Q. Has that been true for some time?

A. Yes.

Mr. Van Sciver: You may cross-examine.

Cross-Examination.

By Mr. Huebner:

Q. Who is in charge of the Parker Appliance Company engineering? [106]

(Testimony of Charles H. Wagner.)

A. Mr. Robert H. Davies.

Q. Is he present here? A. No.

Q. Do you expect him at this trial?

A. No.

Q. Who is in charge of research at Parker Appliance Company?

A. Mr. Davies, Mr. Robert H. Davies.

Q. The same Mr. Davies?

A. The same Mr. Davies.

Q. Who will not be present here? A. No.

Mr. Huebner: No further questions.

The Court: May I ask a question?

Mr. Van Sciver: Certainly.

The Court: You say you have a plant here in Los Angeles?

The Witness: Yes, your Honor, we have.

The Court: Do you make fittings here in Los Angeles?

The Witness: Yes, sir.

The Court: That's all.

Mr. Van Sciver: Thank you. That's all.

(Witness excused.)

Mr. Freeman: Mr. Wolfram. [107]

JOHN N. WOLFRAM

called as a witness by and on behalf of the plaintiff, having been first duly sworn, was examined and testified as follows:

The Clerk: Your name, please?

The Witness: John N. Wolfram.

(Testimony of John N. Wolfram.)

Direct Examination

By Mr. Freeman:

Q. Will you please state your full name?

A. John N. Wolfram.

Q. Where do you reside?

A. At 1608 Maywood Road, South Euclid, Ohio.

Q. By whom are you employed?

A. The Parker Appliance Company.

Q. How long have you been employed by that company?

A. Nearly 18 years.

Q. Will you just briefly testify what your duties were at the outset when you went into the employ of the Parker Appliance Company?

A. When I first joined the Parker Appliance Company in 1932, I started as a draftsman, working mostly on the detailings of fittings for production in the shop.

Q. Has that work, that is, your work with fittings, continued on up to the present time?

A. Yes, it has, with the possible exception of the [108] last three or four years.

Q. Will you tell us just what you have done or what your work consisted of in connection with fittings?

A. As I said, when I first started there, I did routine engineering or drafting on fittings, making drawings for shop purposes. I did that only for a short time as a regular full-time thing, for perhaps several months.

I then was given work to do on technical catalogs.

(Testimony of John N. Wolfram.)

In connection with this, I would gather technical information on fittings and some of the other company products, and write descriptions and prepare charts of dimensional data and other technical information, and prepare the illustrations and prepare the catalog sheets for distribution.

Q. And the technical drawings and technical data that you say you worked on had to do with fittings, correct? A. Largely fittings.

Q. Have you, in connection with your work on different types of fittings, had anything to do with fittings for rubber hose, metal tube, or lead pipe?

A. Yes, I have.

Q. Just what are the general problems that you have dealt with in connection with fittings?

A. Well, as I said, I had been working on the catalog illustrations and the gathering of technical data for catalog sheets, and that continued until about 1939 or so, probably [109] 1940. About that time I got into development work and for a time I acted directly with Mr. Parker and the chief engineer or the chief draftsman for the company, and made records and gathered data in connection with the fitting development programs that were then under way. Some of this data I forwarded to our patent attorneys and followed through to see that patent applications would be filed.

Then in about 1943, the company had expanded in size considerably because of wartime production, and a new building was built for the purpose of carrying on further development work.

(Testimony of John N. Wolfram.)

At that time I was put in charge of a group to do development work on fittings. It was our duty to analyze fitting problems as they were brought to our attention by—well, in that period largely by the Army and the Navy, and to try to solve their problems. These fitting problems involved not only fittings for hard metal tubes, such as steel and aluminum, but they also involved problems with rubber hose fittings.

This development program, I might add, continued until the end of the war, and during that period we had perhaps five or six engineers working on the research problems under my direction for that full period of time. Then after the war ended it tapered and the program as it was then constituted ended about the middle of 1946, at which time I got out of active [110] development work on fittings, and the function was consolidated with the regular engineering department.

Q. Does Parker Manufacturing Company manufacture what we call a two-piece fitting, or did it manufacture a two-piece fitting?

A. It did, yes.

Q. Did it manufacture a fitting sometimes referred to as an NAF two-piece fitting?

A. Not to my knowledge did they manufacture the fitting that was officially known as an NAF fitting, but we were well acquainted with it. It is possible that they may have manufactured a few of the components in the Los Angeles plant, but as to the actual manufacturing of that fitting, I am not certain.

(Testimony of John N. Wolfram.)

Q. Do you have a fitting here illustrative of a two-piece fitting? A. Yes, I do.

Q. Will you briefly explain and show to the court the make-up of a two-piece fitting?

Mr. Freeman: This, your Honor, is part of the background leading up to the Parker patent in suit, and I think it is material and we will shorten it as much as we possibly can.

The Witness: I have in my hand three pieces, but one of the pieces is a short section of tube, which is to be [111] coupled by the fitting itself. The fitting comprises the two pieces which we commonly refer to as the body member and the nut member.

The body member has a threaded section and a beveled portion against which a flared tube may be clamped. The body also has a wrench-engaging portion and a thread at the other end to which the fitting, or by means of which the fitting may be mounted in an engine or a cylinder or other device.

The nut is a single piece and has a thread for engagement with the thread on the body. The nut on its inside also has a tapered surface, which is adapted to engage the outer face of the flare on the tube. The nut has a bore through it so that it can be inserted over the tube with the inside shoulder, which I have mentioned, brought into engagement with the flare on the tube. Then the nut is threaded onto the body, and in so doing the inside surface of the flare is tightly clamped against

(Testimony of John N. Wolfram.)

the beveled portion of the body to establish a liquid-proof seal.

Q. (By Mr. Freeman): Is that fitting that you have just described illustrative of the two-piece NAF fitting?

A. Yes, it is illustrative of the two-piece, but it is not the actual NAF fitting, as the NAF fitting is commonly understood to be.

Q. As of today, that is an AN fitting, is that correct? [112]

A. That is correct.

Q. Is it also illustrative of what we generally refer to as a two-piece fitting, as distinguished from a three-piece fitting?

A. That is correct.

Mr. Freeman: I am going to offer in evidence as Plaintiff's Exhibit 19 a fitting illustrative of the NAF fitting, sometimes referred to as a two-piece fitting.

The Court: It may be received.

The Clerk: No. 19.

(The article referred to was received in evidence and marked as Plaintiff's Exhibit No. 19.)

Mr. Freeman: Likewise, I am going to offer as Plaintiff's Exhibit 20 a similar illustrative fitting with a section cut out so that the inside may be more readily seen.

The Court: It may be received.

The Clerk: No. 20.

(The article referred to was received in evidence and marked as Plaintiff's Exhibit No. 20.)

(Testimony of John N. Wolfram.)

Mr. Freeman: You might point out to the court the three parts, that is, the tube, the body, and the other member, as shown in section.

The Witness: This is a completely assembled fitting with the tube in place and with the flare on the tube. The point at which I have my pencil now is clamped between the [113] external beveled surface of the body and the internal beveled surface of the nut. The clamping is brought about by the threaded engagement at this point between the nut and the body member.

Q. I am going to hand you a fitting and will ask you to state just what it is.

A. The fitting I now have in my hand is a two-piece fitting of a somewhat different type than the NAF which we have been discussing. This fitting differs from the NAF type in that the body has a female thread and the nut has an external thread. The body itself has a recessed portion below the thread with a conical or beveled surface on it against which the inner face of the flare is clamped by the nut.

Q. I am going to hand you another fitting similar to the one you have in your hand, which we will offer as Plaintiff's Exhibit 21, and will ask you——

The Clerk: Are you offering that?

Mr. Freeman: I am offering it.

The Court: Exhibit 21 may be received.

The Clerk: No. 21.

(The article referred to was received in evi-

(Testimony of John N. Wolfram.)

dence and marked as Plaintiff's Exhibit No. 21.)

Q. (By Mr. Freeman): —which includes a cut-away section and corresponds to Plaintiff's Exhibit 21—— [114]

The Clerk: That is 22.

The Court: It may be received.

The Clerk: No. 22.

(The article referred to was received in evidence and marked Plaintiff's Exhibit No. 22.)

Q. (By Mr. Freeman): I am going to hand you a fitting, which includes a small piece of tubing therein in its entirety, and another one with a section cut out, and will ask you to explain both of these and what they show.

A. These are two samples of the same fitting, one being cut away and the other not being cut away. The fitting is what has been known as the Parker triple type fitting. It is a three-piece fitting. This fitting has also been known as the Air Corps 811 fitting, it having been the standard or adopted as the standard by the Army Air Corps for use in aircraft.

Q. Adopted prior to 1940, correct?

A. That is correct. I believe that this fitting was officially approved as the standard by the Air Corps some time in 1935.

Mr. Freeman: I should like to offer the fitting, that is Parker's No. 811, size 6, which is in its entirety, or not cut away, as Plaintiff's Exhibit 23.

The Court: It may be received.

(Testimony of John N. Wolfram.)

The Clerk: No. 23. [115]

(The article referred to was received in evidence and marked Plaintiff's Exhibit No. 23.)

Mr. Freeman: And a similar fitting with a section cut out for illustrative purposes as Plaintiff's Exhibit No. 24.

The Court: It may be received.

The Clerk: No. 24.

(The article referred to was received in evidence and marked Plaintiff's Exhibit No. 24.)

Q. (By Mr. Freeman): Now, will you turn to the Parker patent in suit, patent No. 2,212,183, Plaintiff's Exhibit No. 1, and briefly describe the various parts, its make-up, and what the patentee said with respect to the various parts of the fitting?

A. In the drawing of the patent, Fig. 1, is an illustration of a complete cross-section view of the fitting with a section of tube clamped in place.

Fig. 2 is a partial section view showing the parts in their loose assembly, or what we might say finger tight position; that is, this is the position that the parts are in when they are just brought up snug and no appreciable pressure has been applied to the nut by a wrench.

Fig. 3 is a cross-section view similar to Fig. 2, which shows the parts in their relationship after wrench pressure has been applied to make the joint tight. [116]

Q. Just what do you mean by finger tight?

A. I mean that is the position of the parts as

(Testimony of John N. Wolfram.)

assumed when the parts are threaded together with the fingers and just brought up snug so that there is no play, all the play is taken up, that is the nut is threaded onto the body and threaded on far enough so that the nut will engage the sleeve at the shoulders of the respective parts, so that the sleeve will be forced against the outside surface of the flare on the tube and the flare brought against the beveled surface on the body. But it is the position to which they are just brought without any pressure being applied which would distort or put any of the parts under stress.

Q. Does Fig. 3 illustrate the position of the parts when you have moved the nut beyond what we might call the finger tight position by using a wrench for fastening the parts together?

A. That is correct. And the position of Fig. 2, that is, the finger tight position, we could not very well expect the fitting to stay closed or to seal the tubing against leakage. It is necessary to stress the parts somewhat by applying additional pressure or by applying pressure with a wrench. When this is done the parts are stressed and the sleeve, in particular, is caused to expand somewhat. This is necessary so that a liquid tight seal will be made.

Q. Now, turning to the specification, and particularly [117] the first paragraph of the patent, what does the patentee there state with respect to the subject matter of his present invention or the patent?

A. It is stated in this first paragraph that the

(Testimony of John N. Wolfram.)

present invention relates to improvements in tube couplings, and particularly to improvements in couplings such as typified in the prior Parker patents 1,893,442 and 1,977,240.

Q. Can you point out among the exhibits that have already been offered a fitting typifying or exemplifying Parker Patent 1,893,442?

A. Yes, I can.

Q. Will you come down and pick out the one you want?

The Court: May I ask a question?

Mr. Freeman: Yes.

The Court: Is there any contention here that you have a patent upon the flared end of the tube?

Mr. Freeman: No, no. The patent is directed to the fitting.

The Court: There is no question about the flare?

Mr. Freeman: No.

The Court: Do you contend that you have a patent upon the way the body is beveled so as to fit into the flared end of the tube?

Mr. Freeman: That is one part of the patent, that is one component or one portion of the claim. In other words, [118] the patent is defined, the structure covered by the patent is defined in each one of these three claims. Just as Mr. Huebner said earlier in his opening statement, each claim has to be measured by itself.

The Court: Didn't I understand—wasn't there a stipulation, in fact, about two former patents of

(Testimony of John N. Wolfram.)

Parker? You are not claiming anything under the former patents?

Mr. Freeman: No.

The Court: But didn't they use the same bevel here upon the body?

Mr. Freeman: They used a cone-shaped surface, that is correct, and I am just getting into that second patent, because I want to show your Honor wherein this patent differed from it, and that is why I purposely included a fitting made in accordance with the earlier patent, and we will show wherein the fittings that we now charge to infringe differ from the earlier patent 1,893,442, and differ from the earlier fittings manufactured by the Parker Appliance Company.

The Court: Well, in the former patent they used this beveled cone?

Mr. Freeman: That is correct, that one portion, that is correct. They also had a body member in the former patent.

The Court: Is this beveled cone in the public domain?

Mr. Freeman: Yes, I would say—I mean as long as you do not use it in the combination with the sleeve, having the [119] sleeve angle and all the rest of it, yes. It is very much as I have said, every word of Lincoln's Gettysburg speech is within the public domain, yet it took Lincoln to put those words together to make a great speech.

The Court: So if I understand correctly, the beveled flare, and the bevel upon the body, that is

(Testimony of John N. Wolfram.)

where the tube and the coupling come together, is in the public domain?

Mr. Freeman: I would say yes to that.

The Court: Excuse me for breaking in.

Mr. Huebner: Your Honor, before that question is answered, may I suggest that a proper foundation should be laid by the introduction of these patents? [120]

The Court: Are you talking about the answer from the attorney or the answer from the witness?

Mr. Huebner: I think there is a question the witness hasn't answered, and he has been asked to pick out a fitting which corresponds to a patent which is not yet in evidence. I am only suggesting that there should be continuity.

The Court: My understanding was that he was to pick out a fitting that was in evidence.

Mr. Freeman: That was in evidence, and he picked one out that was in evidence.

Mr. Huebner: There is no patent in evidence that you are talking about. You are telling him to pick one out that corresponds to patent 1,893,442, and there is no such patent in evidence. So why doesn't he, to lay a foundation, put the patent in evidence. Otherwise, it is objectionable on the ground there is no foundation laid.

Mr. Freeman: I think we can only do one thing at a time, and I asked him to pick up a physical device which is already in evidence, and pick it out as to the particular patent that is referred to in the patent in suit. I will at this time, in order to

(Testimony of John N. Wolfram.)

save any controversy, offer in evidence as Plaintiff's Exhibit No. 25, a copy of Parker patent No. 1,893,442, dated January 3, 1933. I am going to hand your Honor an extra copy which has been marked "Court's Copy," which may be used as a work copy. [121]

The Court: That will be received in evidence.

(The document referred to was marked Plaintiff's Exhibit No. 25, and was received in evidence.)

Q. (By Mr. Freeman): Now, for the purpose of the record will you tell me which exhibits you picked up when I asked you to pick up a physical device corresponding to Parker patent 1,893,442?

A. I picked up Plaintiff's Exhibit No. 23 and 24.

Mr. Freeman: At this time I should like to offer in evidence as Plaintiff's Exhibit No. 26 a copy of patent No. 1,977,240, which is likewise referred to in the first paragraph of Plaintiff's Exhibit 1, the patent in suit, No. 2,212,183.

The Court: It will be received.

(The document referred to was marked Plaintiff's Exhibit No. 26, and was received in evidence.)

Q. (By Mr. Freeman): It is correct, is it not, that the Parker Appliance Company manufactured and commercially sold fittings corresponding to the physical specimen here, Plaintiff's Exhibit 23?

A. That is correct.

Q. Now, will you proceed with the further de-

(Testimony of John N. Wolfram.)

scription or what the patentee says constitutes his invention over and above, or the improvement that he made over Plaintiff's Exhibits 25 and 26, which are the Parker patents 1,893,442 and [122] 1,977,240, respectively?

A. In paragraph 2 of the patent 2,212,183 it is stated that it is an object of the invention to provide a tube coupling wherein the coupling members are so constructed and dimensioned that the flared end of the tube is firmly contacted with throughout the greater portion of the flared end so as to provide a tight and efficient seal.

This paragraph indicates that the flare is clamped between the seats throughout the greater portion of the flare itself.

In paragraph 3 of the patent, beginning at line 14, it is stated that it is a further object of the invention to provide a tube coupling of the above type wherein the outer clamping member engaging the flared end of the tube is so dimensioned and shaped that contact is first made at the free end of the clamping member whereby the clamping member is caused to expand, thus bringing the entire clamping surface into intimate contact with the outer surface of the flared end of the tube with a resulting tight and efficient seal.

Q. Now, will you point out just what is meant by the free end of the clamping member?

A. The clamping member which is referred to in this paragraph or object is the sleeve portion which is designated as 17 in the drawing. And the

(Testimony of John N. Wolfram.)

free end of the sleeve is the [123] lower end of the sleeve as viewed in Figure 1 or in Figure 2, the free end of the sleeve is designated by the numeral 19, and this paragraph indicates that this particular end of the sleeve first engages the outer surface of the flare.

Q. Is that illustrated in Figure 2 of the patent drawings?

A. That is illustrated in Figure 2. It will be noted that the portion of the sleeve adjacent the point indicated by the lead line from the numeral 19 is in contact with the flare of the tube, but that the point 18 of the sleeve, which is back a distance from the point 19, is out of contact with the outer face of the flare.

Q. In other words, there is a small amount or an open space between the lead lines for the reference numerals 18 and 11 in Figure 2, is that correct?

A. That is correct.

Q. So that the lower end or the nose end 19 of the sleeve first engages the outer end of the flare, is that correct? A. That is correct.

Mr. Freeman: It is 4:00 o'clock, your Honor, and I am just about ready to get on to another subject.

The Court: If you can stop here, we will conclude for the afternoon.

Mr. Freeman: We can very conveniently. [124]

The Court: All right. We will declare a recess now until 10:00 o'clock in the morning.

(Whereupon, at 4:00 o'clock p.m. Wednes-

(Testimony of John N. Wolfram.)

day, June 14, 1950, an adjournment was taken until 10:00 o'clock a.m., Thursday, June 15, 1950.) [125]

June 15, 1950—10:00 A.M.

The Court: You may proceed.

Mr. Freeman: Mr. Wolfram, will you please take the stand.

JOHN H. WOLFRAM

the witness on the stand at the time of adjournment, being heretofore duly sworn, resumed the stand and testified further as follows:

Mr. Freeman: I return to you, Mr. Huebner, the original of Exhibits 15 and 15-A, furnishing you with a photostat of each and filing with the clerk a photostat of each that shall be the exhibits in this case.

Direct Examination

By Mr. Freeman:

Q. Yesterday at the close you referred to Fig. 2 of the Parker patent, Plaintiff's Exhibit 1, and mentioned the open space between the inner side of the angle or inclined surface of the sleeve and the outside or inclined side of the flare itself; that is correct, is it not? A. That is correct.

Q. Now, will you tell us briefly just what happens, that is, initially, where the sleeve engages the flare, and then what takes place as the sleeve

(Testimony of John N. Wolfram.)

through the cooperation of the nut is [127] tightened?

A. Fig. 2, as we mentioned, shows the parts in what we have called the finger tight or loose assembly position. On page 1, column 2, of the description, beginning with line 31, it is stated: "It will be observed by reference to the dotted line extension *c* in Fig. 2 of the drawing that the flared surface 18 is formed so as to normally bear more acute angular relation to the coupling axis than does the flared tube end outer surface 11 which it is adapted to engage in clamping relation."

This greater angular relationship that this specification describes results in that space between the inside surface of the tapered part of the sleeve and the outer surface of the flare at the heel of the flare or that part of the flare that is farthest from the extreme end of the flare. This angular relationship is a differential angle, the differential angle being the angle bounded by the lines *b* and *c* in Fig. 2.

Q. That is, those lines are continuations of the angle formed by the inner surface of the sleeve and the outer surface of the flare, is that correct?

A. That is correct. And because of this differential angle or the difference in the angles between the sleeve and the tube flare, the sleeve itself is caused to initially come in contact with the flare at a point near the lower end of the sleeve as viewed in Fig. 2 or adjacent the point indicated by [128] the numeral 19. We have also referred to this, I believe, as toe contact, "toe" meaning the extreme

(Testimony of John N. Wolfram.)

bottom end of the sleeve as viewed in Fig. 2. [129]

Q. Now, will you proceed further with your explanation of the Parker patent?

The Court: May I interrupt and ask a question?

Mr. Freeman: Yes.

The Court: On your Fig. 2, between the toe and the upper part of the line, which I would say would be the heel, there appears to be a white space which indicates there is a slight opening.

Mr. Freeman: That is correct. Were you directing your attention to me or the witness?

The Court: No, I am addressing him.

Mr. Freeman: I am sorry.

The Court: What is the advantage of that open space? What does it do?

The Witness: That is one of the distinguishing features of this patent. I think that we are prepared to bring out a number of advantages for that feature, your Honor.

The Court: Am I anticipating? There is a reason for that vacancy there, is there, that opening?

The Witness: Yes, your Honor, there is.

The Court: Well, maybe I am getting ahead of the story.

Q. (By Mr. Freeman): I suggest, as long as the court asks that, although it does follow along in our presentation, that you point out quickly what you mean by toe contact, which [130] is brought about by that open space which the court referred to, and then the advantages of that open space and what happened? Just go ahead briefly

(Testimony of John N. Wolfram.)

and when we come to it again we will endeavor to shorten it up.

The Court: It seems to me there is not only toe contact, but there is heel contact, that is, contact at the upper end, leaving a little vacant space in there between the bottom and the top.

The Witness: I don't believe, your Honor, that there is contact at the upper end in the initial position illustrated in Fig. 2, since the flare is formed on a straight line, so to speak, along that line, small letter b, and the inside surface of the sleeve is formed on a straight line, corresponding to line c. They do contact at the toe end and then diverge from there on, so that there is no contact at the heel end.

Q. (By Mr. Freeman): I think the court is referring to the contact with respect to the vertical wall of the sleeve and the vertical wall of the tube as distinguished from the inclined wall of the sleeve and the inclined wall of the flare. Would you explain that?

A. That contact—it appears to be contact in the drawing and it may or may not be. The sleeve is formed with an inside diameter so as to be a slip fit over the tube itself and, of course, it would be desirable to have a condition [131] where the sleeve would be just in contact with the tube along that vertical wall, but with ordinary manufacturing practices, you usually end up with perhaps two or three thousandths of an inch clearance, which is so small a clearance that it cannot be very well shown on a drawing of this kind.

(Testimony of John N. Wolfram.)

Q. Will you now proceed to explain to the court the advantage or the feature of the Parker patent with respect to what you have referred to as a differential angle?

A. We have just been talking about the differential angle and the resulting toe contact at the point 19. It is the latter that we are more interested in. The toe contact or the initial contact at the toe results in several advantages that are brought about when the coupling is tightened. One of the advantages is that it permits the sleeve head to expand during the clamping action and as it expands, it swings out or pivots somewhat, and thus as it pivots, the surface 18 of the sleeve turns with the sleeve head, so to speak, and eventually comes into contact with the flare.

Q. That is the full area contact at that time?

A. That is correct.

Q. And is that as illustrated in Fig. 3 of the drawing?

A. That is correct.

Q. Now, proceed.

A. Another advantage of the initial toe contact is [132] that it affords an approach to a line type seal, that is, most of the clamping pressure applied by the nut to the sleeve is transmitted to the flare at a line about the circumference, or if we consider one cutting plane through the fitting, it is concentrated at a single point in that cutting plane. Since it is applied to only a point, the unit pressure which will be applied will be very great. If the sleeve is initially in contact with the entire surface

(Testimony of John N. Wolfram.)

of the flare, as illustrated in Fig. 3, if pressure is then applied to the sleeve, all of the pressure is distributed equally along the entire area of the flare, and the unit pressure will not be as great, and it is really unit pressure that we are trying to obtain in order to obtain a tight and efficient seal. [133]

Q. Will you proceed now with the further explanation of the patent?

A. We were discussing the second object of the specification, beginning with line 14, where we closed yesterday. I believe I pointed out at that time that this paragraph indicates that it is an object of the invention to so shape and dimension the parts so that we will obtain this initial contact at the free or lower end of the sleeve, and obtain the toe contact, as we call it. This permits the sleeve head to expand, and as it expands, it swings or pivots and brings about area contact between the sleeve and the flare.

The third object which is stated in the patent is indicated beginning with line 24 of column 1 of the specification and it states that it is an object:

“to provide a coupling of the above type wherein the clamping member engaging the outer surface of the flared end of the tube consists of an inner and an outer sleeve, and wherein the clamping end of the inner sleeve which contacts with the flared end of the tube is so shaped as to be free from radial contact

(Testimony of John N. Wolfram.)

with the outer sleeve when the coupling members are in firm gripping contact with said flared end of the tube."

The specification here refers to inner and outer sleeves, [134] and it says that the clamping member is formed of the inner and outer sleeve.

Q. Will you tell us just what two parts those are, and perhaps point them out on some of the physical exhibits here?

A. The outer sleeve referred to in the specification is actually the nut 12 as shown in Fig. 1, and the inner sleeve is the part which we have been merely calling "sleeve," and which is indicated at 17 in Fig. 1.

Mr. Freeman: Does your Honor have that physical device that illustrates it?

The Court: Yes.

Q. (By Mr. Freeman): Will you proceed further, please?

A. According to this object, it is stated that the clamping end of the inner sleeve, meaning the lower or toe end 19, is so shaped as to be free from radial contact with the outer sleeve, which is the nut 12. Thus, in Fig. 2, it is clearly shown that there is a space between the outer diameter of the lower end of the sleeve adjacent the point 19 and the opposing wall of the nut.

The object further states that the parts are so shaped that these parts, that is, the outer wall of the sleeve and the inner wall of the nut at the lower

(Testimony of John N. Wolfram.)

end of the sleeve, are out of contact when the coupling members are in firm gripping [135] contact with the flared end of the tube. Which means after the parts have been made up wrench tight. And you will note that in Fig. 3 the space at the lower end of the sleeve is still present, but it is illustrated as being somewhat smaller than in Fig. 2. This indicates that the sleeve head has expanded but it has not expanded enough to go out into radial contact with the inner wall of the nut.

Q. When you have that expansion that you have just referred to and take up the space or a portion of the space between the outer wall of the sleeve and the inner wall of the nut, you then have absorbed or lose the space that has been referred to as the differential angle shown in Fig. 2 between the reference numbers 11 and 18, is that correct?

A. That is correct.

Q. And you then have full area contact between the inner wall or the inclined wall of the sleeve and the outer wall of the flare, is that correct?

A. That is correct.

Q. Now, proceed further with your explanation.

A. Near the bottom of column 1 of the specification, beginning with line 51, it is stated that:

“The tube to be clamped is indicated at 8, and this tube is flared at its end, by a suitable flaring tool, as indicated at 9.”

9 being the flared end of the tube. [136]

“Any suitable flaring tool may be used to

(Testimony of John N. Wolfram.)

give to the inner surface 10 of the flared end of the tube an angular positioning, substantially the same as the angle of the seat 7 against which it is to be clamped.”

The seat 7 being the beveled surface on the body member 5.

Q. I am wondering at this time if you would refer to a physical specimen of the tube that I hand you, which we will mark for identification Plaintiff's Exhibit 27. I will ask you to just point out, using both ends, as to what you mean by a tube with a flare. Tell us how it is formed.

A. Your Honor, this is just a short section of tubing and, of course, the tubing length is cut to fit the particular installation. Initially the tube has plain ends as at the end—— [138]

Q. With the smallest diameter?

A. With the smallest diameter. When the tube is cut to the proper length, the nut and the sleeve are slipped over the tube, and then the tube is flared out by some suitable flaring device, the flare being an enlargement of one end of the tube. The flare is formed so that its angle, or the angle of the inner surface of the flare, coincides with the angle on the seat of the body against which it is to be clamped.

Mr. Freeman: I should like to offer in evidence the flared tube as Plaintiff's Exhibit 27.

The Court: It may be received.

The Clerk: No. 27.

(Testimony of John N. Wolfram.)

(The article referred to was received in evidence and marked Plaintiff's Exhibit No. 27.)

Q. (By Mr. Freeman): I am wondering if you would take any of the physical specimens and point out, so that the record is complete, on the body portion the screw threads, the wrench engaging part, so that we will have that in our record here.

A. I have here Plaintiff's Exhibit 5, which is a coupling made in accordance with the patent 2,212,183, and the body member of this coupling has a beveled surface at one end, against which the flare of the tube is to be clamped. This beveled surface coincides with the surface shown at 7 in [138] the patent drawing.

Q. What is the reference numeral used in the patent to refer to the member that we call here the body member?

A. The body member in the patent drawing is referred to by the numeral 5.

Adjacent the beveled end of this body member, there is a screw thread, which is indicated at 14 in the patent.

Q. We refer to that as exteriorally screw threaded.

A. The threads on the body is referred to as an external thread, correct.

Q. And that thread is close to the beveled or inclined portion, correct?

A. That is correct. This is the thread that is engaged by the threads on the nut.

(Testimony of John N. Wolfram.)

Q. I note in the patent, Fig. 1, that the body member just below the threads that you have just referred to by the reference numeral 14, includes an enlarged portion, which has no number on the patent drawing. Will you point that out in the physical device that you have and tell us what function it serves?

A. The enlarged portion shown about in the middle of the body member in the patent drawing illustrates the wrench engaging portion, which is in the form of a hexagon about the body member.

Q. Now, will you proceed with an explanation of the [139] member that has been referred to in the physical device as a nut?

A. The nut is the part which is indicated by the numeral 12 in the patent drawing. It has a thread, which is an internal thread, and which is indicated, also, by the numeral 14 in the patent drawing. This thread engages the thread 14 on the body member.

At one end of the nut there is a flange portion, 15, the inner face of which forms a shoulder, which is opposite a shoulder on the sleeve.

Q. Is that an inwardly extending or an inturned flange?

A. That is correct. I do not see a reference numeral for the shoulder itself, but in Fig. 3 the shoulder is the transverse surface, which lies very close to the end of the lead line for the reference numeral 15.

The nut also has a wrench engaging portion on

(Testimony of John N. Wolfram.)

its outer surface. There is no reference numeral in the drawing to indicate this wrench engaging portion.

Q. But that wrench engaging portion is 6-sided, or at least with a straight side so that a wrench may easily engage it, correct?

A. That is correct.

Q. Now, will you refer to the member of the physical device that has been called a sleeve and describe it? [140]

A. The sleeve is the portion which bears the reference numeral 17 in the patent drawing. It has a bore or a hole throughout its length, through which a tube is adapted to be entered.

At one end of the sleeve, there is an enlargement or head portion, which is indicated by the numeral 17 in the patent drawing. I believe that the sleeve generally is indicated in the patent drawing by the numeral 16, rather than 17. The head of this sleeve has a transverse surface, which is indicated at 20 in the patent drawing, and which lies opposite the clamping shoulder 15 of the nut when the parts are in position and is engaged by that clamping shoulder.

The outer wall of the sleeve head is indicated by the numeral 21 in the patent drawing, and is at an incline, as indicated by the extension line, d.

Q. What do you mean by incline?

A. This surface is slightly inclined with respect to the longitudinal axis of the sleeve.

(Testimony of John N. Wolfram.)

Q. You are now talking about the outer wall of the head of the sleeve, correct?

A. That is correct.

Q. And do I understand that the line d, or the extension of the wall of the sleeve, projects at an angle to the vertical plane?

A. That is correct. It is at an angle to the longitudinal axis of the coupling, or the [141] sleeve.

Q. And it also projects at an angle to the inner wall of the nut?

A. That is correct, the inner wall of the nut is made parallel with the axis of the coupling, so that it does bear an angle with the wall of the sleeve head.

Q. Recognizing, as you have, that the fittings may be in various planes at various times in their actual installation, but taking the position of the patent drawings, and assuming that the drawing is held in a straight up and down or vertical position, then it is correct to say that the inner wall of the sleeve is in a vertical plane, is that correct?

A. That is correct.

Q. And it is likewise correct to say that the outer wall of the sleeve is at an angle to the vertical plane?

A. That is correct.

Q. And when I say "sleeve," I am talking about the sleeve head or the enlarged portion of the sleeve.

A. Yes, that is correct.

Q. And the outer wall of the sleeve, which is

(Testimony of John N. Wolfram.)

narrower or smaller, and encompasses the tube itself, it is in a vertical plane, is that correct?

A. Could you read the question? I am not sure I follow you.

(Question read by reporter.) [142]

The Witness: That is correct.

Q. (By Mr. Freeman): Between the narrow portion of the sleeve and the enlarged portion or head of the sleeve you have a horizontal shoulder, is that correct? A. That is correct.

Q. And that horizontal shoulder engages what part of the other components that go to make up the fitting or coupling?

A. That shoulder engages the clamping shoulder 15 of the nut.

Q. Is it correct for me to say that the part which you referred to as an inturned flange of the nut has a shoulder upon it which rests and engages with the shoulder formed by the enlarged portion of the sleeve? A. That is correct.

The Court: May I ask a question?

Mr. Freeman: Yes.

The Court: Is the sleeve so constructed so as to preclude the tube, at least the flared end of the tube, from touching or coming in contact with the nut? In this example you have given me, it seems that the flared end of the tube does not come in contact with the nut, it rests upon the sleeve, the sleeve comes in contact with the nut but not the tube, is that correct?

The Witness: That is correct, your Honor, the

(Testimony of John N. Wolfram.)

flare [143] does not contact the nut, the sleeve is between the flare and the nut.

The Court: Is that any part of the claims of the patent? Is there any advantage because of that?

Mr. Freeman: Yes, there is an advantage, and we point that out in that the sleeve serves as the clamping member, and that the sleeve is put under tension or expansion as we drive the nut home, and we do not want the flare to come in contact with the internal threads of the sleeve, because, if that happened, you never could back the sleeve off in order to replace the parts. Now we are going to point that out, but I did not want to answer your Honor's question.

Q. In the patent the member 5 is referred to as a male member, is that correct?

A. That is correct. That reference is on line 49 of column 1, page 1.

Q. So that the terms "male member" and "body member" are one and the same?

A. That is correct.

Q. By what name or nomenclature is the part that you have here referred to as the "sleeve" specified in the patent?

A. In column 2, beginning with line 18, it is stated that the coupling, meaning the whole assembly, includes a female member formed in two sections. Then in the sentence beginning with line 23 it says that the female coupling member [144] also includes an inner clamping sleeve 16. So that the patent refers to the part which we have called the "sleeve" as an "inner clamping sleeve."

(Testimony of John N. Wolfram.)

Q. And how is the other member referred to, that is, the part that we here call a "nut"?

A. In line 19 of column 2 it is stated that the outer section or clamp nut is in the form of a sleeve having threads, and so forth. So that the part that we call a "nut" is referred to in the patent is an "outer section" or as a "clamp nut," or as an "outer sleeve."

I believe that term appears at some other point in the patent.

Q. And the part referred to as the "outer sleeve" is, in fact, the nut that is internally screw threaded? A. That is correct.

Q. And it is that part which is screw threadedly" engaged with the body member or male member 5, is that correct? A. That is correct.

Q. And the clamping sleeve of the patent is the member that we have here referred to as the sleeve?

A. That is correct.

Q. And that part cooperates and engages with the nut? A. That is correct. [145]

Q. And likewise that part called the "sleeve" or "clamping sleeve" engages with the outer surface of the flare? A. That is correct. [146]

Q. Following, perhaps, the inquiry on the part of the court with respect to the flare and its engagement with or lack of engagement with the nut, I am now going to ask you whether or not in actual practice, or in actual use of fittings of the kind here involved, it is necessary to connect and disconnect them in their course of operation or use?

(Testimony of John N. Wolfram.)

A. Yes. The usual thing is that the fittings are subjected to connection and disconnection many times.

Q. Do you know as a fact whether or not the government test requirements contemplate a specific number of connections and disconnections of the fitting, and still have a useable fitting at the end?

A. Yes. The government test specification for fittings, which is ANF 47, requires that a fitting which is to be approved for government use, must be capable of withstanding repeated connections to the extent of 15 times, not only with a normal amount of wrench pressure, but with a greater amount of wrench pressure, which might be called over-tight.

Q. So that we understand it, when you say "over-tight," you mean more than what a mechanic should apply by way of pressure for a normal connection?

A. That is correct.

Q. In other words, you exceed in test requirements [147] on the part of the government the normal position or the normal torque of the fitting?

A. That is correct. The government does set up recommended torques to be used with the couplings, as with the AN couplings.

Q. Just what do you mean by "torque"? What is torque?

A. Well, torque is the inch pounds of pressure which is applied by means of a wrench. It is the

(Testimony of John N. Wolfram.)

product of the amount of pressure which is put on the wrench in pounds, times the distance from the center of the nut at which the torque or at which the pressure is applied.

Q. And the torque pounds or the torque, as we call it, increases as the nut is screwed into the body member; correct? A. That is correct.

Q. So that you have a normal torque designated or suggested by the government for normal installation, correct?

A. That is correct. If the coupling is assembled with the torque which is recommended, the joint should be leakproof and entirely satisfactory. But they require that the coupling be capable of withstanding greater torques than those recommended, because it is difficult to positively control the actual amount of torque which a mechanic will put [148] on the coupling.

Q. In other words, you have the independent judgment of the mechanic, who uses the fitting, to take into consideration? A. Very much so.

Q. And notwithstanding the over-torqueing requirements, the fitting still must be a useable fitting after 15 assemblies and disassemblies, or 15 uses?

A. That is correct. That is what the government specification requires.

The Court: Mr. Freeman, may I ask you a question?

Mr. Freeman: Yes, sir.

The Court: Is it a contention in this case that the plaintiff has the patent upon the theory of keep-

(Testimony of John N. Wolfram.)

ing the flare, the surface of the flare, from touching the inner surface of the nut, or is that in the public domain? That feature alone now?

Mr. Freeman: Well, I would say that feature alone is in the public domain. However, the relationship of the sleeve, the angle of the sleeve, the nut, and its cooperation with the sleeve, prevents or eliminates in a tube of this kind having the flare move on in to contact with the nut, because if that happened, you would then have jamming.

The Court: What you contend is that although that is in the public domain, the use, as you put it, is not in the [149] public domain?

Mr. Freeman: That is correct.

The Court: All right.

Q. (By Mr. Freeman): Turning now to page 2 of the patent, starting at about line 11, will you tell me what occurs in the coupling from the time it is loosely connected, as shown in Fig. 2 of the drawing, and the time that the coupling is tightened with the correct amount of torque, as is shown in Fig. 3 of the patent?

A. As stated, beginning with line 11, column 1, of page 2, Fig. 2, of the drawing illustrates the partial assembly of the coupling, and in Figs. 1 and 3, the complete assembly or fully-clamped condition of the parts is shown. The specification goes on to say that:

“It will be observed by reference to these figures that during the assembly of the coupling

(Testimony of John N. Wolfram.)

the nose 19 alone first contacts the outer surface 11 of the tube flare,"

this being what we have referred to as initial toe contact. The specification then continues and says:

"and upon continued application of end thrust by the screwing on of the member 12 and engagement of the clamping shoulders 15 and 20, the head 17 will be spread or displaced radially outwardly to store gripping tension in said head [150] and move forwardly along the flared end of the tube to cause the clamping surfaces 11, 18, and 7, 10 to tightly contact throughout the whole of their respective areas."

This discussion has been describing the expansion or spreading action of the head of the sleeve and the storing of gripping tension in the sleeve. The gripping tension we also refer to as a hoop tension and it is brought about by the expansion of the sleeve, which places it under a tensile strength and which results in the sleeve head trying to contract back to its original position, and this contracting force results in a gripping tension upon the flare of the tube. [151]

Q. So that as you tighten up the nut, the head of the sleeve is expanded within its elastic limits, is that correct? A. That is correct.

Q. And then when you disassemble for reuse or for services of any of the hydraulic systems on an aircraft or other installations, the sleeve then resumes its initial or original position?

(Testimony of John N. Wolfram.)

A. That is correct.

Q. So that when you use the same fitting over again, you again place the sleeve under a tension or a tendency to contract? A. That is correct.

Q. In other words, is it correct for me to say that the sleeve of the fitting is expanded when you bring about a sealing connection, and yet the sleeve itself is tending to push inwardly radially and thus hold the flare firmly against the body member, that is, the inclined portion on the body member?

A. That is correct.

Q. Incidentally, the sealing is brought about by metal to metal contact?

A. That is correct, metal to metal contact between the inner side of the flare and the beveled surface or seat on the body member. [152]

Q. By the inner side of the flare you are referring to the flare on the tube?

A. That is correct.

Q. Can either of those surfaces, that is, the contact surfaces between the body member and the inside of the flare, be roughened or serrated, or what should be the condition of the inside of the flare and the outside of the body member where they engage?

A. They should be very smooth and well-machined, precision machined, so as to obtain good sealing surfaces.

Q. And does the sleeve itself bring about the necessary contact between the flare and the body member to give us the sealing action required?

(Testimony of John N. Wolfram.)

A. Yes, because the sleeve is the member that is actually in contact with the flare of the tube to press it into tight engagement with the seat on the body.

I might continue with this paragraph that I was quoting from.

Q. Proceed.

A. On line 26 of column 1, page 2, it is stated:

“During the displacement or outward spreading of the head 17,”

That is the head of the sleeve.

“the wall 21,”

Which, again, is the wall of the sleeve. [153]

“will approach the adjacent wall of the sleeve member 12,”

Which is the nut.

“but the degree of taper of said head wall”

And that, again, is the head wall of the sleeve.

“is such that it will never contact and bind against said sleeve member wall.”

Which is the nut wall.

Turning to the figures of the patent drawings, this means that the angle on the outer wall of the sleeve head, indicated by the small letter d is such that when the sleeve head expands during the clamping action, all of the clearance between the sleeve head wall 21 will not be taken up at the lower end adjacent the numeral 19, so that there will be a space remaining between this wall at the point 19 and the inner wall of the nut.

(Testimony of John N. Wolfram.)

Beginning with line 33 of column 1, page 2, of the specification, it is also stated that:

“It is noted that the clamping shoulder on the head 17 is spaced a distance back from the inner flare surface of said head and the outer surface of the head and said inner wall of the coupling are so dimensioned that the head will contact with the nut in the region of the clamping shoulder, while the remaining portion of the head is free from [154] contact with the coupling member, and, therefore, the clamping force of the head against the tube is determined by the spring tension of the metal forming the head. In other words, the inner flare surface of the sleeve will yieldingly clamp the flared tube end while unlimited expansion of that portion of the head adjacent the clamping shoulder will be prevented.”

Thus, referring back to the drawings, there is sufficient room at the lower end of the sleeve to accommodate all of the expansion that will occur during the normal makeup of the fitting without putting the lower end of the sleeve into contact with the wall. While at the upper end of the sleeve the clearance is initially closer so that the expansion will be limited.

Mr. Freeman: I am just going to get into another phase. I want to check my drawings, and, also, I furnished some exhibits to opposing counsel, so that we will not take the court's time if we could start our 15-minute recess now, your Honor.

(Testimony of John N. Wolfram.)

The Court: All right. We will take a recess now for 15 minutes.

(A recess was taken.) [155]

Mr. Freeman: If your Honor please, I think yesterday there was some question about the cessation of hostilities that came up and you asked for a little information. I have the President's proclamation with regard to cessation of hostilities. I am going to ask Mr. Lyon to read it into the record at this time, if I may.

The Court: I have no objection.

Mr. Lyon: I am reading from the Federal Register of January 1, 1947, Title 3—The President, Proclamation 2714.

“Cessation of Hostilities of World War II by the President of the United States of America, a Proclamation.

“With God's help this nation and our allies, through sacrifice and devotion, courage and perseverance, wrung final and unconditional surrender from our enemies. Thereafter, we, together with the other United Nations, set about building a world in which justice shall replace war. With spirit, through faith, with a determination that there shall be no more wars of aggression calculated to enslave the people of the world and destroy their civilization, and with the guidance of Almighty Providence great gains have been made in translating military victory into permanent peace. Although a state of war still exists, [156] it is at this time

(Testimony of John N. Wolfram.)

possible to declare, and I find it to be in the public interest to declare, that hostilities have terminated.

“Now, therefore, I Harry S. Truman, President of the United States of America, do hereby proclaim the cessation of hostilities of World War II, effective 12:00 o’clock noon, December 31, 1946.

“In witness whereof, I have hereunto set my hand and caused the seal of the United States of America to be affixed.

“Done at the City of Washington this 31st day of December in the year of our Lord nineteen hundred and forty-six, and of the Independence of the United States of America the one hundred and seventy-first.

“HARRY S. TRUMAN

“By the President:

“JAMES F. BYRNES

“The Secretary of State.”

The Court: Mr. Freeman, as I remember that exhibit, it was a two-pronged exhibit.

Mr. Freeman: I will be glad to go into that. I merely wanted to get into the record the question of the cessation of hostilities.

The Court: That is the question of the cessation of hostilities, [157] but——

Mr. Freeman: They will want to check it, and I thought this was an opportune time, as long as we could take it from the law library of the court.

(Testimony of John N. Wolfram.)

The Court: Very well. I just wanted to call your attention to the fact that this was to remain in effect for the duration of the present war and was to terminate upon the cessation of hostilities.

Mr. Freeman: And to terminate when we have cessation of hostilities.

The Court: It doesn't say when we have cessation. It says "upon cessation."

Mr. Freeman: We have present cessation of hostilities by the President's proclamation. I don't want to argue that for the moment.

The Court: I don't either, but I just want to call your attention to it, that that sentence includes two parts, that is, the duration of the war, and to terminate upon cessation of hostilities. It is going to take some argument to clarify that point, I think.

Mr. Freeman: I am handing your Honor a booklet consisting of a group of photostatic copies of sketches. We are going to refer to them one at a time. I have handed the defendants' counsel the first one, which I am going to ask the clerk to mark Plaintiff's Exhibit 28-A. [158]

The Court: It may be so marked.

The Clerk: No. 28-A.

(The document referred to was marked Plaintiff's Exhibit 28-A for identification.)

Q. (By Mr. Freeman): Will you please explain as briefly as you can the photostat, or Exhibit 28-A? Tell us quickly what it illustrates.

(Testimony of John N. Wolfram.)

A. This is a drawing which I made to illustrate a typical tubing installation. The drawing shows a pump and a tubing line leading from the pump to an engine or place of use of a fluid. The pump is for the purpose of delivering or forcing fluid through the tubing line to the engine, and the tubing line is shown as being connected to the pump by means of a fitting, and it is also connected to the engine by a fitting. [159]

Q. I am now handing you a photostat marked 28-B entitled 'Tubing vs. Pipe, and will ask you to explain what that is illustrative of?

A. This is a drawing which I made to illustrate a typical tubing installation with a comparable installation made with threaded pipe fittings. Figure 1 shows the tubing installation, and your Honor will note that there are two points of connection to the block member to which the tubing is connected. At each point there is a single tube fitting for connecting the tubing to the block. In Figure 2 we have illustrated the same type of installation, but with threaded pipe fittings, and it will be noted that there are five sections of pipe required, and four fittings, and in all there are eleven joints or places where a seal must be accomplished. In Figure 1 there are only two fittings, one piece of tube, and there are four joints or places where a seal must be accomplished. Thus it will be very readily apparent that a tubing installation requires fewer fittings, there are less points of possible leakage, and it is a neater and quicker and easier job to install.

(Testimony of John N. Wolfram.)

Mr. Freeman: I am going to ask that the physical exhibit that I have here be marked Plaintiff's Exhibit 29, and I will ask you quickly to compare it with the sketch that you have, Plaintiff's Exhibit 28-B. [160]

(The device referred to was marked Plaintiff's Exhibit 29, for identification.)

The Witness: The physical exhibit 29 is a physical embodiment of the installation shown in Exhibit 28-B. As now before us it is provided with the threaded pipe fittings and corresponds to Figure 2 of Exhibit 28-B.

Q. (By Mr. Freeman): That is the lower figure of Exhibit 28-B? A. That is correct.

Mr. Freeman: I would like to offer in evidence the physical device just referred to as Plaintiff's Exhibit 29.

The Court: It may be received.

(The device, heretofore marked Plaintiff's Exhibit 29, for identification, was received in evidence.)

Mr. Freeman: Did you see it?

Mr. Huebner: No, but that is all right. It apparently is just a contrast of pipe and tubes.

The Court: I think counsel will agree that this is a great advantage over the old system, there is no comparison between a tube installation and a pipe installation.

Mr. Huebner: There isn't. They had flared tubes on automobiles back in 1902. They wouldn't

(Testimony of John N. Wolfram.)

use an iron pipe to connect a gasoline tank with a carburetor even back in 1902. I don't see the materiality, but I am not objecting.

Q. (By Mr. Freeman): I am going to hand you a piece of [161] tubing with some fittings on it, which has been marked for identification as Plaintiff's Exhibit No. 30, and will ask that you quickly explain it.

A. The tubing assembly marked Exhibit 30 is a tube with fittings on the ends corresponding to the tubing shown in Figure 1 of Exhibit 28-B, and is adapted to be mounted upon the Exhibit 29 in place of the threaded pipe fittings now thereupon it.

Q. And the physical specimen that you have in your hand, Plaintiff's Exhibit 30, is illustrative of the tubing shown in Figure 1 of Plaintiff's Exhibit 28-B, is that correct? A. That is correct.

Mr. Freeman: I should like to offer in evidence the drawing Plaintiff's Exhibit No. 28-B, and also the physical specimen of tubing as Plaintiff's Exhibit 30.

The Court: They may be received.

(The document referred to was marked Plaintiff's Exhibit 28-B, and the device was marked Plaintiff's Exhibit 30, and both were received in evidence.)

(Plaintiff's Exhibit 28-C, for identification, was marked by the clerk.)

Q. (By Mr. Freeman): I am going to ask you to turn to the drawing entitled "Tubing vs Pipe"

(Testimony of John N. Wolfram.)

which has been marked Plaintiff's Exhibit 28-C, and I will ask you to quickly explain [162] what it illustrates.

A. Exhibit 28-C illustrates in Figure 1 an end of a threaded pipe, partly in cross-section. It shows the heavy wall which is necessary to accommodate the cutting of the threads onto the pipe. Figure 2 shows a comparable size piece of tubing, also partly in cross-section, and with the one end flared. It will be noted that the tubing wall is considerably thinner than the wall of the pipe, since no extra wall thickness need be provided to accommodate threading.

Mr. Freeman: I am going to offer in evidence as Plaintiff's Exhibit 28-C the drawing entitled "Tubing v. Pipe."

The Court: It may be received.

(The drawing, heretofore marked Plaintiff's Exhibit 28-C, for identification, was received in evidence.)

Q. (By Mr. Freeman): I am going to ask you to next turn to the drawing entitled "Typical Fitting for Lead Pipe," which has been marked 28-D.

Mr. Huebner: Are you offering that, Mr. Freeman?

Mr. Freeman: No, I am not offering it. I am just asking that it be marked for identification. If I should slip in by accident an offer when I don't intend to, you can certainly object to it.

Mr. Huebner: I want to object to that on the

(Testimony of John N. Wolfram.)

ground that it is irrelevant and immaterial and has nothing to do with the [163] issues. It isn't proven, anyway. There is no foundation laid for it.

Q. (By Mr. Freeman): I am going to ask you what is illustrated in Plaintiff's Exhibit 28-D, for identification. [164]

A. Exhibit 28-D illustrates a typical fitting for use with lead pipe, that is, pipe made of lead material.

Q. Did you make that drawing yourself?

A. Yes, I made this drawing.

Q. Have you made up any fittings or used any lead pipe with fittings?

A. Yes, sir. I made up several fittings for lead pipe. However, the fittings I made up do not coincide exactly with the fitting shown in this Exhibit-D.

Q. Tell me, in the fittings you made up where you used lead pipe, what happens to the flare, that is, the flare of the lead pipe, as you screw the nut onto the body member?

A. The lead pipe is quite soft and pliable and it flows quite readily, and it is impossible to put any appreciable amount of wrench pressure upon the fitting without causing the lead to flow and to squeeze out between the clamping surfaces which engage the flare, and to thin out the lead flare to the point where it is extremely weak and would not hold appreciable pressure or pull-out strength upon the pipe.

Q. Did you find from the experience that you had with fittings and lead pipe that when you apply pressure onto the nut to move the sleeve in engage-

(Testimony of John N. Wolfram.)

ment with the flare, that some of the lead pipe flowed into the threads or it contacted the threads of the nut?

A. Yes, very definitely. The metal that is between [165] the clamping surfaces of the nut and body, as it squeezed, it flows from between the surfaces and part of this material flows into the threads of the nut.

Q. Would that hinder or interfere with the ease of removing the nut?

Mr. Huebner: Your Honor, I object to this specific question in an endeavor to stop this line of examination as not relevant or material. We are not arguing here about lead pipe. We are arguing about fittings and patents on fittings.

The Court: I don't know. He is trying to establish that this is much superior to any other fitting. I don't think that is an issue in this case. I think all parties agree, including the court, that this is much superior.

Mr. Freeman: If your Honor will recall, they held up here an illustrative drawing in the opening statement, to which I made no objection at that time, of a publication or a book called Bjorling. It is entitled "Lead Fittings." If I can get **Mr. Huebner** or the defendants to agree with me that you have a different problem in connection with fittings for lead, then I will not ask any further questions with respect to lead pipe.

The Court: I don't think there is any question

(Testimony of John N. Wolfram.)

here that there is a different problem with lead than there is with tubing. [166]

Mr. Huebner: As far as the use of lead is concerned, your Honor, naturally it is heavier than aluminum for a given volume, and they have used aluminum and in some cases they have used steel. My point is we are dealing with fittings and parts of fittings, and not the material of the tube which is clamped by the fitting. There might be a fitting which is adaptable for use with flared lead tubing, one adaptable for use with flared aluminum tubing, or with flared steel tubing, under some circumstances, the identical fitting that is used with aluminum may be used with lead, so there is a reason for using lead tubing.

The Court: I think one of the desirable features of these fittings, is the fact that they can be disengaged very readily and the tubing can be removed and replaced, and one of the reasons they can be disengaged is the fact that no part of the tubing is allowed to come in contact with the threads, and consequently no part of the tubing is allowed to become deposited in the threads. With lead pipe, you can very easily see from this drawing that lead pipe does flow into the threads and, consequently, makes it much more difficult to change a fitting with a lead installation than it does with aluminum. No question about that. I will sustain the objection.

However, if counsel raises any point on this matter, why, then, I will allow you to introduce evidence on it, but I [167] think it is immaterial at this time.

(Testimony of John N. Wolfram.)

Mr. Freeman: Then I understand and I appreciate the court's giving me the opportunity to put in additional evidence which should go in as part of our *prima facie*, in the event that they produce fittings applicable to lead.

The Court: If they make any issue as to the question of lead fittings, I will let you go back and put in this evidence.

Mr. Freeman: Thank you.

Mr. Huebner: In order to avoid any mix-up in Mr. Freeman's presentation, I may state, your Honor, one of our prior art publications, which I did show a drawing of, is a fitting which is referred to as being used in connection with a lead tubing. The fitting isn't lead but the tubing connected with it was. So if that is going to be considered introducing the subject of lead, I had better withdraw the objection at this point. As a matter of fact, some of Parker's own literature refers to the use of his own fittings with lead tubing.

The Court: Well, I think we can get the evidence in in less time than we can argue about it.

Mr. Huebner: I think we can.

Mr. Freeman: I think it would be better if it went in. It tells the story and the court will then have all the facts.

The Court: I will reverse my ruling and overrule the [168] objection.

Mr. Freeman: I am now going to offer in evidence as Plaintiff's Exhibit 28-D the illustrative drawing entitled "Typical Fitting for Lead Pipe."

The Court: It may be received.

(Testimony of John N. Wolfram.)

The Clerk: 28-D.

(The drawing referred to was received in evidence and marked Plaintiff's Exhibit 28-D.)

Q. (By Mr. Freeman): I am going to hand you a piece of pipe which has been marked Plaintiff's Exhibit No. 31——

The Clerk: No. 31.

(The object referred to was marked Plaintiff's Exhibit No. 31 for identification.)

Mr. Huebner: What kind of pipe?

Mr. Freeman: Lead pipe.

Q. ——and will ask you just quickly to explain what it is, although I have already answered counsel.

A. This is a short section of standard commercial lead pipe.

Q. About what is the inside diameter or the capacity, referring to it either by inches or fraction of inches?

A. The inside diameter is approximately $\frac{3}{4}$ of an inch.

The Court: Did you introduce the pipe?

Mr. Freeman: I will offer it, your Honor. [169]

The Court: It may be received in evidence.

(The object referred to was received in evidence and marked Plaintiff's Exhibit No. [170] 31.)

Q. (By Mr. Freeman): I am going to hand you a drawing marked Plaintiff's Exhibit 28-E, which is entitled "Wall Thickness of Flare Thins Out on

(Testimony of John N. Wolfram.)

Hard 'Tubes,' and will ask you quickly to explain what that drawing illustrates.

A. Exhibit 28-E illustrates the end of a hard metal tube with the end flared. The drawing further illustrates that as the tube is flared the wall thickness thins out so that the extreme end of the flare, at the region marked with the letter B, the wall thickness is thinner than at the beginning portion of the flare or the region marked A.

Mr. Freeman: I should like to offer in evidence as Plaintiff's Exhibit 28-E the drawing just referred to by the witness.

The Court: It may be received.

(The drawing referred to was marked Plaintiff's Exhibit 28-E, and was received in evidence.)

(A document was marked Plaintiff's Exhibit 28-F, for identification, by the clerk.)

Q. (By Mr. Freeman): I hand you a drawing entitled "Typical Two-piece Fitting for Thin Wall Hard Tubes," marked for identification Plaintiff's Exhibit No. 28-F, and will ask you to quickly explain it.

A. Exhibit 28-F is a drawing which I made to illustrate a typical two-piece type fitting for thin wall hard tubes. Figure 1 in this drawing shows a typical two-piece fitting of [171] this type with the parts brought together in the loose assembly or finger tight position. Figure 2 is a fragmentary view showing the relation of the seat parts and the

(Testimony of John N. Wolfram.)

flare when wrench pressure has been applied to tighten the fitting to its final position.

Q. Do you have any physical specimens, which are now in evidence, illustrating somewhat a typical two-piece fitting?

A. Yes. There are in evidence Plaintiff's Exhibits 21 and 22, which illustrate fittings of the type shown in the drawing Exhibit 28-F.

Q. That is, one is a complete unit and the other is a unit cut in half, or section cut out, for illustrative purposes?

A. That is correct. Exhibit 21 is a complete unit, and Exhibit 22 is the cut-away unit.

Q. Looking again at Plaintiff's Exhibit 28-F, for identification, and the physical device Plaintiff's Exhibit 22, would you tell me what happens as the nut is screwed into the body member?

A. As the nut is screwed into the body member the forward or lower end of the nut as viewed in this drawing presses upon the outer surface of the flare of the tube, and in turn causes the inner surface of the flare to press against the beveled seat within the body member. As the [172] nut thus presses upon the flare the forward end of the nut, or lower end, is caused to expand and to go out into radial contact with the side wall of the nut in the region immediately below the threaded, that is, the internally threaded portion of the body. When the nut at its lower end has thus expanded into contact with the body, it is backed up by the body and further expansion is limited, but the forces in the

(Testimony of John N. Wolfram.)

parts then react and cause the seat on the body, which engages the inner surface of the flare of the tube, to deform inwardly somewhat and adjust itself into perfect seating and sealing contact with the inner surface of the flare.

Q. Is it true that when the nut rotates in the typical two-piece fitting that the nut then scores or scratches the outside surface of the tube flare?

A. Yes, when the nut is rotated to bring it to its final position against the flare, that is, from the loose assembly position to the tight assembly position, it directly engages the outer surface of the flare, and either of two things could happen: either it will carry the tube around with it, in which case the tube rotates on the body seat itself and would cause scoring or scratching of the sealing surfaces on the flare and body member, or if the nut does not carry the tube around with it, then the nut rotates directly upon the outer surface of the flare, as you have mentioned, and would cause score marks to occur in the outer [173] surface of the flare.

Q. Now, if the tube twists any, is that something that can be forgotten in hydraulic installations?

A. No, it isn't to be forgotten; it is to be very seriously considered, because when the tube is twisted as its one end in this fashion, naturally the other end of the tube must be anchored to some other member and would not be subject to twisting, and if one end twists and the other end does not, that sets up a torsional strain within the tubing itself and loads it with a pre-stress condition. Pre-

(Testimony of John N. Wolfram.)

stressing of the tube in this manner is not desirable. In the first place, since tubing does not need to be threaded the wall thickness can be originally chosen to hold the pressure of the fluid which it is to contain, and the wall thickness need not be made any thicker than necessary to hold this pressure. When the tube is twisted in this fashion it sets up tensile stresses within the tube and reduces the margin that you have provided for holding the internal fluid pressure. [174]

Q. Is there any tendency when there has been scoring of the flare to set up a possible rupture of the flare or the tube?

A. Yes, very definitely. When the tube is installed in an installation, it is usually in an installation where there are moving parts close by or possibly one of the parts to which the tubing is connected may have a slight amount of relative movement compared with the other part to which the other end of the tubing is connected. This relative motion may be referred to as vibration.

Vibration is one of the most serious factors to be considered in a tubing installation, because it can quite readily bring about fracture of the tube unless it is guarded against and provided for. When a tube is vibrated to the point of failure, it is almost invariably the case that failure occurs in the region of the flare. This is probably for the reason that the flare has been stretched somewhat by the actual flaring operation, and it has been thinned out somewhat when it has been stretched out. Anything that

(Testimony of John N. Wolfram.)

you do to the flare beyond the normal flaring operation which would tend to weaken the flare just adds to the possibility of a fracture occurring in the flare sooner than you may have provided for or tried to guard against.

Q. Now, as the nut is moved to its tightened position, as illustrated in the typical two-piece fitting, Plaintiff's [175] Exhibit 28-F for identification, is it fair to say that the lower end of the nut operates as a wedge between the outer wall of the flare and the inner wall of the body member?

A. Yes, that is correct, because the lower end of the nut expands to take up whatever initial slip-fit clearance you have provided between it and the opposing wall of the body, and as soon as this clearance is taken up, then the lower end of the nut acts as a wedge between the nut wall and the flare itself to further compress or force the flare against the body seat.

Q. So, in addition to wedging due to the angular shape of the nut, that is the cross-sectional shape of the nut, you have a wedge action, and simultaneously a rotating action? A. That is correct.

Mr. Freeman: We will offer in evidence as Plaintiff's Exhibit 28-F the drawing entitled "Typical Two-Piece Fitting for Thin Wall Hard Tubes."

The Court: It may be received.

The Clerk: No. 28-F in evidence.

(The drawing referred to was received in evidence and marked Plaintiff's Exhibit 28-F.)

The Court: Mr. Freeman, before you continue, I notice it is nearly 12:00. We will take our recess now until 2:00 o'clock this afternoon. [176]

(Thereupon, at 12:00 o'clock noon, a recess was taken until 2:00 o'clock p.m., of the same date.) [177]

Los Angeles, California, Thursday, June 15,
1950, 2:00 P.M.

JOHN N. WOLFRAM

called as a witness by and on behalf of the plaintiff, having been previously sworn, resumed the stand and testified further as follows:

Direct Examination
(Continued)

By Mr. Freeman:

Q. I hand you a drawing which we will mark Plaintiff's Exhibit 28-G, entitled "Typical Three-piece Fitting" and ask you to explain it briefly.

(A document was marked Plaintiff's Exhibit 28-G, for identification, by the clerk.)

A. Exhibit 28-G is a drawing which I made to illustrate a typical three-piece type fitting for thin wall hard tubes. Figure 1 is a cross-section through the coupling showing the parts in their loosely assembled condition. And Figure 2 is a fragmentary view through the seat portion and showing the relation of the parts, that is, the sleeve head and the flare of the tube and the seat on the body when

(Testimony of John N. Wolfram.)

the coupling has been tightened with a wrench.

Q. Are you through? A. Yes, sir.

Q. Do you have any physical specimen of that type of device here present? [178]

A. I have here two specimens. One is Plaintiff's Exhibit 24, which shows a coupling of this type with a portion cut away, and the other is Plaintiff's Exhibit No. 23, which shows the parts in their initial condition.

Mr. Freeman: I offer in evidence Plaintiff's Exhibit No. 28-G.

The Court: It may be received.

(The document, heretofore marked Plaintiff's Exhibit 28-G, for identification, was received in evidence.)

(A document was marked Plaintiff's Exhibit 28-H, for identification, by the clerk.)

Q. (By Mr. Freeman): I hand you a drawing marked 28-H with the heading "Three-piece Fitting Parker Patent No. 2,212,183," and will ask you to very briefly tell us what is there illustrated.

A. Exhibit 28-H is a drawing that I made to illustrate the type of coupling disclosed in the Parker patent No. 2,212,183. Figure 1 is a cross-section view through the length of the coupling showing the parts in their loosely assembled condition. And Figure 2, again, is a fragmentary view showing the seat parts after the coupling has been made wrench tight. [179]

Mr. Freeman: I will ask the clerk to mark this

(Testimony of John N. Wolfram.)

fitting as Plaintiff's Exhibit No. 32.

The Clerk: No. 32.

(The article referred to was marked Plaintiff's Exhibit No. 32 for identification.)

Q. (By Mr. Freeman): I am going to hand you a fitting marked Plaintiff's Exhibit No. 32, which is a Parker No. 24 aluminum fitting, and will ask you to describe it briefly and make any comparison you want with the sketch, Plaintiff's Exhibit 28-H.

Mr. Freeman: If I may interrupt, I am also going to ask that the No. 24 aluminum Parker fitting, which is cut in section, be likewise marked Plaintiff's Exhibit 33.

The Clerk: No. 33.

(The article referred to was marked Plaintiff's Exhibit No. 33 for identification.)

Q. (By Mr. Freeman): You might use both of them, one being a complete device and the other being a cut-in-section for better illustrating the internal arrangement.

A. The two fittings which you have handed me, Exhibits 32 and 33, are parts made in accordance with the Patent 2,212,183, as illustrated in Exhibit 28-H, and they are both of Parker manufacture and bear the Parker trademark.

Q. The one that is cut in section for illustrative [180] purposes, will you tell me, if you know, what torque or how much pressure was applied upon the nut for bringing it to the position that it is now in and what you did in connec-

(Testimony of John N. Wolfram.)

tion with cutting it in half, or cutting a section of it?

A. Exhibit 33, which is the cut-away sample, was assembled with 750 inch pounds torque. I think that number is correct. I could check it. This is the average torque that is recommended by government specifications. I say "average torque." Actually, the government specifications set out a range from minimum to maximum, and I believe that the minimum for this particular size is 600 inch pounds torque and the maximum is 900 inch pounds torque, and I used an average between them as the torque to assemble this fitting with.

After the fitting was assembled to this torque, it was carefully cut so that it is in its present condition on a milling machine and the nut has been pinned so that the parts would remain in their present position, that is, the nut has been pinned to the body at the back side.

Q. And is that to keep the parts from coming apart or being unscrewed during handling?

A. That is correct.

Q. Do you have another device where instead of pinning them, you used a plastic for retaining the parts in their position, so that when they were cut apart, they would [181] still remain in the same position?

A. Yes, we do have such a sample.

Mr. Freeman: I am going to ask the clerk to mark the device with the plastic in as Plaintiff's Exhibit No. 34.

(Testimony of John N. Wolfram.)

The Clerk: No. 34.

(The article referred to was marked Plaintiff's Exhibit No. 34 for identification.)

Q. (By Mr. Freeman): Do I understand that Exhibit No. 34 differs from Exhibit No. 33 in that Exhibit No. 33 the parts were pinned together, whereas in 34 the parts are held together by plastic? A. That is correct.

Q. Of course, plastic is not used normally in connection with the fittings?

A. No; that is correct.

Q. And that was only used illustrative in this case to retain the parts from coming apart due to the fact that they were cut in half or a section cut out? A. That is correct.

Q. And the same is true with respect to the pinning as you have referred to it in connection with Plaintiff's Exhibit 33?

A. That is correct. I might add that the plastic material was added or poured into the fitting through the two holes that you have in the side of the nut after the parts had [182] been assembled to their proper torque. The plastic was in a liquid condition and flowed into the crevices that remained and then set there. [183]

Q. After it was set, you then cut away a portion of Plaintiff's Exhibit 34, is that correct?

A. That is correct.

Mr. Freeman: I am going to offer in evidence Plaintiff's Exhibit 28-H.

(Testimony of John N. Wolfram.)

The Court: It may be received.

(The diagram, heretofore marked Plaintiff's Exhibit 28-H, for identification, was received in evidence.)

Mr. Freeman: I am going to ask that the drawing or sketch entitled "Sleeve Head Angle" be marked for identification 28-I.

(The drawing referred to was marked Plaintiff's Exhibit 28-I, for identification.)

Q. (By Mr. Freeman): In about three words will you tell us what it illustrates?

A. Exhibit 28-I is a drawing which I made to illustrate the sleeve itself taken from the Parker patent 2,212,183, and it specifically shows the angle which is on the outside surface of the head of the sleeve.

Mr. Freeman: I offer in evidence the drawing marked 28-I.

The Court: It may be received.

(The drawing, heretofore marked Plaintiff's Exhibit 28-I, for identification, was received in evidence.) [184]

(A document was marked Plaintiff's Exhibit 28-J, for identification, by the clerk.)

Q. (By Mr. Freeman): I hand you a drawing marked 28-J, and as quickly as possible will you tell us what it illustrates? The drawing is entitled "Free Expansion of Sleeve Head."

(Testimony of John N. Wolfram.)

A. This drawing illustrates the sleeve of the coupling in the dotted position, this being the position when the parts are in finger tight or loose assembly condition. The drawing also shows the same sleeve head in a full line position, and showing that the sleeve head has been expanded at its lower end and has taken up part of the initial clearance between the side wall of the sleeve head and the adjacent wall of the nut.

Q. Do I understand that the dotted line position is the initial position or what we might call finger tight position? A. That is correct.

Q. And that the solid line position is the position the parts assume after the nut has been brought up to the proper torque? A. That is correct.

Mr. Freeman: I offer in evidence the drawing marked 28-J.

The Court: It may be received. [185]

(The document, heretofore marked Plaintiff's Exhibit 28-J, for identification, was received in evidence.)

(A drawing was marked Plaintiff's Exhibit 28-K, for identification, by the clerk.)

Q. (By Mr. Freeman): I hand you a drawing marked 28-K entitled "Expansion of Sleeve Head Provides Hoop Tension." The term "Hoop Tension" was referred to earlier in connection with your description of the Parker patent. Will you please explain what the drawing illustrates?

A. This is a drawing which I made of the sleeve

(Testimony of John N. Wolfram.)

alone and showing what I call a wire hoop wrapped around the lower end of the sleeve as a means of pictorially representing hoop tension in the sleeve. The hoop tension is not initially present, of course, but is imposed when the sleeve has undergone expansion during the tightening of the coupling. When the coupling is tightened and the sleeve head expands, the metal within the sleeve head is put under tensile stress and tends to return to its initial contracted position. This tendency to return is what we refer to as the hoop tension.

Mr. Freeman: I will offer in evidence the drawing marked "Expansion of Sleeve Head Provides Hoop Tension." heretofore identified as Plaintiff's Exhibit 28-K.

The Court: May I ask a question?

Mr. Freeman: Yes. [186]

The Court: When you tighten up on these connections, in tightening up you cause friction, don't you, and friction causes heat, and heat causes expansion, is that correct?

The Witness: That is correct, your Honor.

The Court: Well, the more you tighten up, the more the heat and the more the expansion?

The Witness: Your Honor, I think that there is so very little heat generated in the ordinary operation of tightening a coupling that it can be completely ignored.

The Court: You don't get enough heat to cause any appreciable change in the volume present?

(Testimony of John N. Wolfram.)

The Witness: Not in my experience or knowledge.

Mr. Freeman: I am going to offer in evidence the three physical specimens heretofore referred to as Plaintiff's Exhibits Nos. 32, 33 and 34.

The Court: They may all be admitted in evidence.

(The drawing, heretofore marked Plaintiff's Exhibit 28-K, for identification, and the specimens heretofore marked Plaintiff's Exhibits 32, 33 and 34, for identification, were received in evidence.) [187]

Q. Will you tell us just what does expand in the fitting when it is tightened up?

A. As the fitting is tightened up, the sleeve head itself is forced downwardly onto the conical surface of the flare of the tube by the action of the nut, and it is the sleeve head itself which undergoes expansion.

The Court: Because of the pressure?

The Witness: Yes, your Honor, because of the fact that the nut is forcing it downward onto a conical surface and the cone tends to spread the sleeve.

The Court: That is because of the pressure by the nut?

The Witness: Yes, your Honor.

The Court: Not because of heat?

The Witness: Of course, if there is heat present, it would tend to cause expansion of the metal in

(Testimony of John N. Wolfram.)

itself, but I don't think that there is enough heat present to cause enough expansion that you could measure.

Mr. Freeman: I will ask the clerk to mark this drawing as Plaintiff's Exhibit 28-L.

The Clerk: No. 28-L.

(The drawing referred to was marked Plaintiff's Exhibit No. 28-L for identification.)

Q. (By Mr. Freeman): I hand you a drawing marked Plaintiff's Exhibit 28-L, which is entitled, "Hook Tension [188] Lock Nut Against Loosening." Will you please explain what you mean about the hook tension preventing the nut from loosening?

A. This is a drawing that I made based upon our Patent 2,212,183 and illustrates in the dotted position the original position of the sleeve head. The full line position of the sleeve represents the final position when it has been properly tightened. You will note that this position is out farther in a radial direction than the dotted line position, to indicate expansion of the sleeve head.

Since the expansion of the sleeve head stretches the metal of the sleeve head around the circle of the head, it puts the head under tensile stress. This tensile stress tends to cause the sleeve to return to its original position, that is, the sleeve is constantly tending to contract to the position shown in the dotted line. However, it cannot do this as long as the nut bears against the sleeve and shoulder in the

(Testimony of John N. Wolfram.)

position marked A in the drawing, since in order for the sleeve head to contract, it must slide back up the conical surface of the flare, that is, when you view the drawing, the sleeve head to contract would have to move in an upward direction.

The nut prevents this upward movement, and the reaction is taken in the threads, the threaded engagement between the nut and the body at the point marked B. [189]

This effect is quite similar to that of the commonly known and understood lock washer. If the nut should for any reason be loosened just a small part of a turn, the shoulder at the region marked A would be moved in the upward direction a slight amount. However, if it should do this, the sleeve would immediately slide up the cone of the tube flare and take up the space that would otherwise occur at the point A, and again come in contact or, probably I should say it would remain in contact with the nut shoulder at the point A so that the coupling would still remain tight. There would still be pressure between the sleeve and the nut at the point A which would cause a reaction pressure at the threads at point B and result in enough friction being retained at the point B to prevent further unloosening of the nut.

Mr. Freeman: I am going to offer in evidence the drawing just identified as Plaintiff's Exhibit 28-L.

The Court: It may be received.

The Clerk: No. 28-L.

(Testimony of John N. Wolfram.)

(The drawing referred to was received in evidence and marked Plaintiff's Exhibit No. 28-L.)

The Witness: I might make a comment here that this drawing has a little inaccuracy in that the lead line from the word "body" should extend over to the other member, rather than to the member that it does.

Q. (By Mr. Freeman): In other words, you have two [190] lead lines to the nut, and you want the lead line from the body to extend over to the body member? A. That is correct.

Mr. Freeman: With the defendants' permission, might we make that change?

Mr. Huebner: Certainly. Do anything you want him to do. The drawings, I understand, are merely illustrative of his testimony, so he is at liberty to change them if he wants.

Mr. Freeman: I already have offered it and I don't want to make any changes without everybody agreeing.

Mr. Huebner: May we see what he did so we can conform our copies?

Mr. Freeman: If the court will give me his, we will conform it.

The Court: I will conform mine.

Mr. Freeman: May I ask the clerk to mark this drawing as Plaintiff's Exhibit 28-M?

The Court: 28-M for identification.

(The drawing referred to was marked Plaintiff's Exhibit No. 28-M for identification.)

(Testimony of John N. Wolfram.)

Q. (By Mr. Freeman): I now hand you a drawing marked Plaintiff's Exhibit 28-M, and will you tell us what is there illustrated? That drawing is entitled "Free Expansion Corrects Out-of-Round Sleeve." [191]

A. Exhibit 29-M is another drawing which I made to indicate how expansion of the sleeve head can correct out-of-round sleeves. When sleeves are manufactured, they are usually made from solid bar material, and the hole is drilled through them, and the outside surface is properly contoured by cutting tools in an automatic screw machine, and when the parts come off the machine sometimes the cutting away of the material has changed the internal stress conditions of the material, so that if we measured the sleeve carefully across the diameter at one point and then again at another point at right angles to the first measuring point, there may be a slight out-of-round condition that may run one or two, possibly three, thousandths of an inch in some extreme, or more extreme cases, so that the sleeve head or other parts of the sleeve may actually be slightly oval.

When the oval sleeve is assembled with a coupling and a piece of tube, it would not seat perfectly all around the diameter upon the flare. When the sleeve head then expands as wrench pressure is applied, it will tend to take a round position, or whatever position the outer surface of the flare is. In other words, if the flare is not perfectly round and is at slight variance with the roundness of the sleeve, the sleeve

(Testimony of John N. Wolfram.)

will tend to conform itself to the surface of the flare, and it is expansion and the yielding or movement of the sleeve head that permits this. [192]

Mr. Freeman: I am going to offer in evidence the drawing entitled "Free Expansion Corrects Out-of-round Sleeves" as Plaintiff's Exhibit 28-M.

The Court: It may be received.

(The document referred to was marked Plaintiff's Exhibit 28-M, and was received in evidence.)

(A document was marked Plaintiff's Exhibit 28-N, for identification, by the clerk.)

Q. (By Mr. Freeman): I hand you a drawing marked Plaintiff's Exhibit 28-N, entitled "Expansion Converts Toe Contact to Area Contact," and I think you mentioned earlier this morning something about pivotal or pivotal movement and line contact, and I wish you would tell us just what this drawing illustrates.

A. This is a drawing which I made to illustrate how the sleeve head as it expands converts initial toe contact between the sleeve and the flare to area contact. The dotted lines show the initial position of the lower end of the sleeve as they appear in the finger tight or loose assembly. As the sleeve head expands during the process of tightening with a wrench, the expansion takes the form of a pivotal movement. When we consider any one cutting plane through the longitudinal direction of the coupling, the pivot point for this movement is located some-

(Testimony of John N. Wolfram.)

where above the shoulder contact between the nut and the sleeve. Since the expansion is of a pivoted [193] nature when we consider any one cutting plane, the initial angle of the outside of the sleeve head decreases. Likewise, the angular position of the inside seat or flared surface of the sleeve head changes. Initially, the bottom portion of the sleeve head engages in line contact with the flare of the tube, and then the flare surface of the sleeve head diverges somewhat from the outer surface of the tube flare. However, the pivoted movement of the sleeve head causes the angular position of the inside surface of the flared part of the sleeve head to change so that it will conform more nearly with that of the flare of the tube.

Q. I am wondering if I could ask you to take Plaintiff's Exhibit 28-H, for identification, and put a lead line on there with the word "Body" opposite the body.

(Witness does as requested.)

Mr. Freeman: I am going to offer in evidence the drawing No. 28-N.

The Court: It may be received.

(The drawing, heretofore marked Plaintiff's Exhibit 28-N, for identification, was received in evidence.)

Q. (By Mr. Freeman): I think you have said with respect to many of these drawings under the general heading of Plaintiff's Exhibit No. 28, that all of those were made by yourself?

(Testimony of John N. Wolfram.)

A. That is correct, I have made this entire series of drawings. [194]

Q. That is, you personally made them?

A. That is correct.

(A document was marked Plaintiff's Exhibit No. 28-O, for identification, by the clerk.)

Q. (By Mr. Freeman): I hand you a drawing marked Plaintiff's Exhibit No. 28-O and will ask you to very briefly describe it.

A. This is a drawing which I made to illustrate the point that expansion of the sleeve makes the amount of nut turning less critical. When the coupling is being assembled the nut is turned with a wrench from the finger tight position to the final position. The tubing being a hard metal tube does not need to be compressed very much in order to create a fairly large sealing stress, as you might call it, between it, that is, between the inner flare surface, and the body. Therefore, there is not a great deal of actual turning movement of the nut required to bring about this sealing stress. In fact, the wrench torque goes up quite rapidly from the finger tight position to the final position. When the sleeve head can expand, as it does, in the fittings here involved, part of the turning movement of the nut is translated into vertical movement of the sleeve, which tends to compress the flare itself, as I have indicated on the drawing here by the expression "Compression of Flare," and part of the turning movement of the nut is translated into radial [195] movement,

(Testimony of John N. Wolfram.)

or expansion of the sleeve head. Thus, if we take and turn a nut slightly more than it should be turned during normal make-up, there will be a part of the turning movement applied to radial expansion and part to compression of the flare, and there won't be as much damage or needless compression put upon the flare as if we do not have expansion of the sleeve head.

Q. I hand you a drawing marked Plaintiff's Exhibit 28-P, for identification, entitled "Angle Provides More Room for Expansion Where Expansion Is Greatest." Will you please explain just what you mean by that heading and what the drawing illustrates?

(The document was marked Plaintiff's Exhibit 28-P, for identification, by the clerk.)

A. As I have said before, the expansion of the sleeve head is of a pivoted type when we consider one plane through the sleeve head. Since it is pivoted, then the points of the sleeve head which lie closest to the pivot point will not move as far as the points which lie a greater distance from the pivot point. The points of the sleeve, which are at the lower end of the head, as viewed in this drawing, are farther from the pivot point than the points of the sleeve head toward the upper end of the drawing. Therefore they move a greater distance and the sleeve head angle provides additional space between the sleeve head and the wall [196] of the nut to accommodate this additional or greater movement.

Q. In other words, the sleeve head as it expands

(Testimony of John N. Wolfram.)

more towards its lower end is provided with room for such expansion without necessarily contacting the inner wall of the nut proper?

A. That is correct.

Mr. Freeman: I am going to offer in evidence the drawing entitled "Expansion Makes Amount of Nut Turning Less Critical," as Plaintiff's Exhibit 28-O, and the drawing or sketch just referred to entitled "Angle Provides More Room for Expansion Where Expansion Is Greatest," as Plaintiff's Exhibit 28-P.

The Court: They may be received.

(The documents, heretofore marked Plaintiff's Exhibits 28-O and 28-P, respectively, for identification, were received in evidence.)

(A document was marked Plaintiff's Exhibit 28-Q, for identification, by the clerk.)

Q. (By Mr. Freeman): Earlier this morning in connection with the Parker patent you mentioned shoulder-to-shoulder contact, that is, between the sleeve and the nut, and I am going to give you a drawing which has been marked for identification Plaintiff's Exhibit No. 28-Q and will ask you to explain what it is and its connection, if any, with your earlier testimony about the shoulder-to-shoulder contact or area of contact. [197]

A. This is a drawing which I made to indicate the fact that the angle on the outside of the sleeve head permits a maximum of shoulder contact between the nut and the sleeve.

(Testimony of John N. Wolfram.)

I have already pointed out that the sleeve head undergoes a pivotal movement as it expands, and that sufficient clearance is provided at the lower end of the sleeve head as viewed in this drawing to accommodate this expansion, and that the expansion at this point is greater than it is at the upper end of the sleeve head. Since there is not as much expansion at the upper end of the sleeve head, it is not necessary to provide as much room for expansion.

The angle on the outside of the sleeve head provides a means for providing the large clearance at the bottom of the sleeve head and at the same time to fill in some of the clearance which would otherwise appear at the top of the sleeve head, and which is not necessary, and by such means to provide as wide a shoulder of contact or area of contact between the nut shoulder and sleeve shoulder as possible.

Q. Do you have greater distribution of the load or pressure when the shoulder-to-shoulder contact is of greater area?

A. Yes. The amount of wrench pressure which is applied to these fittings has been largely determined by the amount of pressure which must be applied to the flare to establish a seal so that we can more or less consider the wrench [198] pressure a fixed or arbitrary value.

The wrench pressure is transmitted by the nut to the sleeve at the shoulder contact area which we are speaking of. If this area is quite small, the unit pressure will be quite large, and that would cause a gouging and distortion of the parts. It is desirable

(Testimony of John N. Wolfram.)

to keep this bearing area or contact area as large as possible in order to avoid gouging and to keep the unit pressure as low as possible so as to avoid damage to the parts.

Mr. Freeman: I offer in evidence as Plaintiff's Exhibit Q the drawing entitled "Angle Permits Maximum Shoulder Contact."

The Court: It may be received.

The Clerk: No. 28-Q.

(The drawing referred to was received in evidence and marked Plaintiff's Exhibit No. 28-Q.)

Mr. Freeman: I will ask the clerk to mark this drawing as Plaintiff's Exhibit 28-R.

(The drawing referred to was marked Plaintiff's Exhibit No. 28-R for identification.)

Q. (By Mr. Freeman): I hand you a drawing which has been marked Plaintiff's Exhibit 28-R, entitled "Angle Facilitates Disassembly of Sleeve From Nut," and I wonder if you would point out just what you mean by the angle on the outside of the sleeve assisting or facilitating easy disassembly of [199] the parts.

A. This is a drawing which I made to illustrate the point that the angle on the outside of the sleeve head facilitates disassembly of the sleeve from the nut. As shown in the drawing, it sometimes occurs, depending possibly on the type of machining practice employed in making the nut, that the nut

(Testimony of John N. Wolfram.)

threads will kick up a small burr on their small diameter. This is marked on the drawing as thread burr. The angle of the sleeve head provides a means of getting the sleeve head started past the thread burrs, if they should occur, so that the sleeve may more readily be disassembled from the nut.

Mr. Freeman: I am going to offer the drawing just referred to as Plaintiff's Exhibit 28-R.

The Court: It may be received.

The Clerk: No. 28-R in evidence.

(The drawing referred to was received in evidence and marked Plaintiff's Exhibit No. 28-R.)

Mr. Freeman: I ask that the clerk mark this as 28-S, this drawing.

(The drawing referred to was marked Plaintiff's Exhibit No. 28-S for identification.)

Q. (By Mr. Freeman): I think I might speed this up a little bit. I am going to ask you to look at the drawing which has been marked for identification as Plaintiff's [200] Exhibit 28-S and will ask you to state whether or not it illustrates the point that the angle provides additional clearance to avoid locking of the sleeve to the nut.

A. Yes, it does.

Mr. Freeman: I am going to offer the drawing just referred to as Plaintiff's Exhibit 28-S.

The Court: It may be received.

The Clerk: 28-S in evidence.

(The drawing referred to was received in evi-

(Testimony of John N. Wolfram.)

dence and marked Plaintiff's Exhibit No. 28-S.)

Mr. Freeman: I will ask the clerk to mark this drawing as Plaintiff's Exhibit 28-T.

(The drawing referred to was marked Plaintiff's Exhibit No. 28-T for identification.)

Q. (By Mr. Freeman): I hand you a drawing marked Plaintiff's Exhibit 28-T, entitled "Angle Prevents Scoring of Flare," and will you, as quickly as possible, state just what you mean to illustrate by that drawing?

A. We have already stated that the angle of the sleeve accommodates expansion of the sleeve head without causing the sleeve head to contact the nut wall in the normal tightened condition. If it should contact the nut wall, it becomes jammed with the nut, and from there on will turn with the nut so that the two parts, that is, the nut and the sleeve, actually function as a single unit. They both turn [201] together.

If this should happen, then the sleeve will rotate upon the flare in the same manner as the prior two-piece fittings which we have mentioned, and is likely to cause scoring or marking of the flare, which may lead to fracture or failure of the flare.

Mr. Freeman: I will ask the clerk to mark this drawing as 28-U.

(The drawing referred to was marked Plaintiff's Exhibit No. 28-U for identification.)

Mr. Freeman: I hand you a drawing which is

(Testimony of John N. Wolfram.)

marked Plaintiff's Exhibit 28-U, and will again ask you, as briefly as possible, to state what it illustrates.

The Witness: This is another drawing which I made to illustrate the point that if the sleeve should become locked in the nut because of expansion of the sleeve head to take up all of the clearance between the sleeve and the nut, the sleeve will then turn with the nut as a unit, and may cause the tube to twist and thus cause a prestressing of the tube. I mentioned that this morning in connection with the two-piece fittings.

Q. (By Mr. Freeman): So that in the event you do have a three-piece fitting and the parts interlock, you are then operating substantially as a two-piece fitting? A. That is correct.

Mr. Freeman: I will ask the clerk to mark this drawing [202] as 28-V.

(The drawing referred to was marked Plaintiff's Exhibit No. 28-V for identification.)

Q. (By Mr. Freeman): I hand you a drawing which has been marked Plaintiff's Exhibit 28-V, entitled "Angle Facilitates Disassembly of Bent Tubes." Now, will you explain just what you mean to illustrate by that drawing?

Mr. Huebner: Incidentally, what angle is he talking about, do you know?

Mr. Freeman: He is talking about the sleeve angle.

Mr. Huebner: On the inside or the outside?

Mr. Freeman: On the outside of the sleeve.

The Witness: This is a drawing which I made to

(Testimony of John N. Wolfram.)

illustrate the fact that the angle, that is, the outside angle of the sleeve head helps to facilitate disassembly of bent tubes. This follows from the fact that when the angle is present and the sleeve expands, it does not lock with the nut, and the nut can therefore be moved freely on the tube.

In close quarter installation, it is often difficult to put the tube in place over the body, that is, with the flare properly seated upon the bevel of the body. This is particularly true of the second end that is attached. That is, after the first end is attached, the second end of the tube may be difficult to put into place. This is a very definite problem in connection with aircraft where there are very many close quarter [203] installations.

In Figure 1 of this drawing I have illustrated the point that when the nut is not locked to the sleeve and there is a bend in the tube close to the end of the sleeve, the nut may be backed away over the bend and the tube then need only be sprung the distance A, so as to clear the beveled surface of the fitting body.

In Figure 2 I have illustrated the condition that obtains when the nut has locked to the sleeve so that it cannot be backed away from the sleeve. The sleeve being close to the bend can, also, not be backed any substantial distance from the flare of the tube.

In order to disassemble this joint it is then necessary to spring the tube the distance B, which is much greater than the distance A of Figure 1, in order to have the nut clear the end of the body.

(Testimony of John N. Wolfram.)

The Court: Before you start with another drawing it is time to take our afternoon recess. We will now recess until 3:15.

(A recess was taken.)

(A diagram was marked Plaintiff's Exhibit 28-W, for identification by the clerk.)

Q. (By Mr. Freeman): I hand you a drawing marked Plaintiff's Exhibit 28-W, and will you quickly tell us what it is? The title is "Angle Facilitates Disassembly of Damaged and Tagged [204] Tubes."

A. This is a drawing which I made to illustrate how the sleeve head angle by preventing locking of the sleeve to the nut will facilitate disassembly of the tubes when there is a damaged part near the tube to prevent the sleeve from being backed off, or when there is an identification tape or tag near the end of the sleeve.

Q. Now, the angle that you have been talking about up to now is the angle on the outside of the sleeve?

A. On the outside of the sleeve head, that is correct.

Q. And that is the angle that is illustrated on the exhibit marked 28-I, is that correct?

A. That is correct.

(A diagram was marked Plaintiff's Exhibit 28-X, for identification, by the clerk.)

Q. (By Mr. Freeman): I hand you a drawing

(Testimony of John N. Wolfram.)

marked "Differential Angle" and will ask you to state just what it illustrates.

A. This drawing illustrates the differential angle as it appears in the Parker patent 2,212,183.

Q. That is identified as Plaintiff's Exhibit 28-X.

Does that drawing illustrate the open space or the space between the inside of the sleeve angle and the outside of the flare shown in Figure 2 of the patent?

A. Yes, it does. [205]

(The diagram was marked Plaintiff's Exhibit 28-Y, for identification, by the clerk.)

Q. (By Mr. Freeman): Will you next refer to the drawing entitled "Toe Contact Facilitates Formation of Holding Nub" which has been marked for identification 28-Y?

A. This is a drawing which I made to illustrate how the initial toe contact of the sleeve with the flare facilitates the formation of a holding nub upon the flare itself.

(Diagrams were marked Plaintiff's Exhibits 28-Z to 28-EE, for identification, respectively, by the clerk.)

Q. (By Mr. Freeman): I am going to hand you drawings which have been marked Plaintiff's Exhibits 28-Z to 28-EE, inclusive, and I am going to ask you to give the heading and briefly refer to each of those drawings by identification number. [206]

A. Plaintiff's Exhibit No. 28-Z illustrates how the initial toe contact between the sleeve head and the flare tends to produce a line tight seal between

(Testimony of John N. Wolfram.)

the inner surface of the flare and the body member.
Plaintiff's Exhibit No. 28-AA——

Q. Give the title of that, please.

A. ——entitled "Toe Contact Resists Vibration Failure," illustrates how the differential angle or toe contact operates to increase the resistance to failure through vibration, that is, failure of the tube flare.

Plaintiff's Exhibit No. 28-BB is entitled, "Toe Contact Compensates for Misaligned Flares," and illustrates how the initial toe contact between the sleeve and the flare helps to compensate for the misalignment of the flare with the nose of the body.

Plaintiff's Exhibit No. 28-CC is entitled, "Toe Contact Avoids Weakening of the Flare at Its Base," and indicates or illustrates how this is brought about.

Plaintiff's Exhibit No. 28-DD is entitled, "Toe Contact Facilitates Expansion of Sleeve Head." This drawing illustrates how an initial contact between the sleeve and the flare at the toe of the sleeve helps to produce expansion of the sleeve head.

Plaintiff's Exhibit No. 28-EE is entitled, "Toe Contact Increases Wrench Torque Range," and illustrates how the toe [207] contact will bring this result into being.

Mr. Freeman: I would like to offer in evidence the drawings referred to by the witness starting with Plaintiff's Exhibit 28-T, including 28-Z, and starting with 28-AA and concluding with 28-EE.

The Court: They may be received.

(Testimony of John N. Wolfram.)

(The drawings referred to were received in evidence and marked Plaintiff's Exhibits 28-T to 28-EE, inclusive.)

Mr. Freeman: I am going to ask now that all of these loose drawings be put into a book and collectively offered as Plaintiff's Exhibit 28, for convenience.

The Court: They may be put in the book.

Mr. Freeman: I am going to ask that the physical device of an iron fitting be marked for identification as Plaintiff's Exhibit No. 35, and a similar one with a cut-out portion filled with plastic be marked Plaintiff's Exhibit No. 36.

The Clerk: No. 35 and No. 36.

(The devices referred to were marked Plaintiff's Exhibits 35 and 36 for identification.)

Q. (By Mr. Freeman): I will ask you to state whose manufacture these are and what they illustrate.

A. Plaintiff's Exhibit No. 35 is a size 24 steel fitting manufactured by the Parker Appliance Company and made in accordance with the Parker patent 2,212,183. This [208] fitting does not have any of its parts cut.

Q. And as shown there is just in loose or finger-tight position?

A. That is correct. Plaintiff's Exhibit No. 36 is a fitting similar to Plaintiff's Exhibit No. 35. It is also of Parker Appliance Company manufacture. It

(Testimony of John N. Wolfram.)

has been assembled to the normal torque and filled with plastic and then cut away. [209]

Mr. Freeman: I am going to offer in evidence the two Parker fittings as Plaintiff's Exhibits 35 and 36.

The Court: They may be received.

(The fittings referred to, heretofore marked Plaintiff's Exhibits 35 and 36, for identification, respectively, were received in evidence.)

Mr. Freeman: Will you mark these, please?

(The devices referred to were marked Plaintiff's Exhibits 37 and 38, for identification.)

Q. (By Mr. Freeman): I hand you two physical devices marked Plaintiff's Exhibit No. 37 and Plaintiff's Exhibit No. 38, and will you quickly tell us what they are, whose manufacture, and what they illustrate?

A. Plaintiff's Exhibit No. 37 is a size 4 aluminum alloy fitting made in accordance with the patent, and with the parts in loosely assembled condition.

Exhibit No. 38 is a fitting similar to Plaintiff's Exhibit No. 37, except that it has been assembled to normal torque, filled with plastic, and then cut away. Both of these fittings are of Parker manufacture.

Mr. Freeman: I am going to offer the two fittings just referred to by the witness as Plaintiff's Exhibits 37 and 38.

The Court: They may be received.

(Testimony of John N. Wolfram.)

(The devices, heretofore marked Plaintiff's Exhibits 37 and 38, for identification, respectively, were received in evidence.) [210]

Q. (By Mr. Freeman): I might ask you, did you mention the material of those fittings? Were those aluminum?

A. I believe I mentioned that they were aluminum.

Mr. Freeman: Will you mark these, please?

(The devices referred to were marked Plaintiff's Exhibits 39 and 40, for identification.)

Q. (By Mr. Freeman): I now hand you two physical devices marked Plaintiff's Exhibit No. 39 and Plaintiff's Exhibit No. 40, and again will ask you what they are, whose manufacture, and what they illustrate.

A. Exhibit No. 39 is a size 4 steel fitting made by the Parker Appliance Company in accordance with patent 2,212,183. The parts are in loosely assembled condition.

Plaintiff's Exhibit No. 40 is a similar fitting, also of Parker manufacture, and assembled to normal torque, filled with plastic and then cut away.

Mr. Freeman: I am going to offer the two exhibits just referred to by the witness as Plaintiff's Exhibits 39 and 40.

The Court: They may be received.

(The devices, heretofore marked Plaintiff's Exhibits 39 and 40, for identification, respectively, were received in evidence.)

(Testimony of John N. Wolfram.)

Mr. Freeman: Will you mark these, please?

(The devices referred to were marked Plaintiff's Exhibits 41 and 42, for identification, respectively.) [211]

Q. (By Mr. Freeman): I am going to hand you a device marked Plaintiff's Exhibit 41, for identification, and will ask you to tell us what it is and how it compares with Plaintiff's Exhibit 40, and who made it, if you know.

A. Exhibit 41 is a fitting of the same size, material, and type as Plaintiff's Exhibit 40, except that it has been assembled to normal torque, cut away, then embedded in a clear plastic.

Q. So that the parts would remain in a permanent position? A. That is correct.

Q. I now hand you Plaintiff's Exhibit No. 42 and will ask you to state what it is and how it compares with any of the earlier exhibits that you have here referred to.

A. Plaintiff's Exhibit No. 42 is an aluminum fitting of the same size and manufacture as Plaintiff's Exhibit No. 38. It has been assembled to normal torque, cut away, and then mounted in clear plastic so that the parts would remain in their original condition.

Mr. Freeman: I am going to offer in evidence Plaintiff's Exhibits 41 and 42.

The Court: They may be received.

(The devices, heretofore marked Plaintiff's Exhibits 41 and 42, for identification, respectively, were received in evidence.) [212]

(Testimony of John N. Wolfram.)

Mr. Freeman: Will you mark these, please?

(The devices referred to were marked Plaintiff's Exhibits 43 and 44, for identification, respectively.)

Q. (By Mr. Freeman): I hand you two physical devices marked for identification Plaintiff's Exhibits Nos. 43 and 44, and will ask you to explain what they are.

A. Exhibit 43 is a size 8 aluminum alloy fitting made in accordance with the Parker patent 2,212,183.

Mr. Huebner: Your Honor, I move to strike that comment of the witness that it was made in accordance with the patent. Perhaps it was made to illustrate his interpretation of it, but I don't think he is entitled to use that kind of language.

The Court: I think he has been using it all afternoon.

Mr. Huebner: I finally got to the point where I thought it ought to stop.

The Court: Well, it may be a conclusion of the witness as to whether it is made in accordance with the patent or not. I think that is something for the court to determine.

I will overrule the objection. I think this witness is qualified to testify. He is an expert. It is his opinion that it is made in accordance with the [213] patent.

Mr. Freeman: I offer in evidence the——

(Testimony of John N. Wolfram.)

The Witness: I don't think I had finished.

Q. (By Mr. Freeman): I am sorry. Will you proceed and finish your answer?

A. This exhibit is of Parker manufacture and the parts are in loosely assembled condition.

Exhibit 44 is also a size 8 aluminum alloy fitting of Parker manufacture in accordance with the patent 2,212,183, and has been assembled to normal torque, filled with plastic, and cut away.

Mr. Freeman: I now offer in evidence as Plaintiff's Exhibit the Exhibits 43 and 44 in connection with the two devices just identified by the witness.

The Court: They may be received.

The Clerk: No. 43 and No. 44.

(The devices referred to were received in evidence and marked Plaintiff's Exhibits 43 and 44.)

Mr. Freeman: I will ask that these devices be marked for identification.

The Clerk: Nos. 45 and 46 for identification.

(The devices referred to were marked Plaintiff's Exhibits Nos. 45 and 46 for identification.)

Q. (By Mr. Freeman): I hand you two physical devices marked for identification, Plaintiff's Exhibits 45 and 46, and [214] will ask you to state what they are, who made them, and what they illustrate?

A. Plaintiff's Exhibit 45 is a size 8 steel fitting

(Testimony of John N. Wolfram.)

made in accordance with the Parker patent 2,212,183. It is of Parker manufacture and the parts are loosely assembled.

Plaintiff's Exhibit No. 46 is a fitting similar to that of Exhibit 45, except that it has been assembled to normal torque, filled with plastic, and the parts cut away. It is also of Parker manufacture.

Mr. Freeman: I will ask that this drawing be marked Plaintiff's Exhibit 47.

(The drawing referred to was marked Plaintiff's Exhibit No. 47 and marked for identification.)

Q. (By Mr. Freeman): I hand you a drawing marked Plaintiff's Exhibit 47, and I will ask you to compare the drawing with any of the Parker fittings that you have just referred to, that is, physical fittings.

A. Plaintiff's Exhibit No. 47 is a cross-section drawing of the type of fitting exemplified by Plaintiff's Exhibit No. 39.

Q. Now, will you point out the body portion on that drawing? A. Shall I mark it as "body"?

Q. Yes, please.

A. I am marking the body with a lead line and the [215] word "body."

Q. And also the nut with the word and lead line.

A. I am marking the nut with a lead line and the word "nut."

Q. Will you do likewise there with the sleeve?

A. Yes.

(Testimony of John N. Wolfram.)

Q. Will you tell us what you had to do with the making of the drawing from which that cut, Plaintiff's Exhibit 47 for identification, was made?

A. This drawing was made under my direction from the same dimensions used in the making of Plaintiff's Exhibit No. 39. In other words, this is a scale drawing coinciding with Exhibit No. 39, but it has been enlarged, I think, five times.

Mr. Freeman: I think I can save some time, your Honor, instead of having that drawing, Exhibit 47, marked up by this witness, to offer in evidence a similar drawing, which was referred to in the Amon deposition and in the Davies deposition and in the Ronald Berg deposition, and therefore I would like to offer in evidence as Plaintiff's Exhibit No. 48 the drawing referred to in the Amon deposition as deposition Exhibit No. 2.

The Court: It may be received.

The Clerk: No. 48 in evidence. [216]

(The drawing referred to was marked Plaintiff's Exhibit No. 48 in evidence.)

Q. (By Mr. Freeman): I have just handed you a photostat marked Plaintiff's Exhibit No. 48, of the Amon deposition Exhibit 2, and will ask you if the drawing there or the cut there is the same you have just referred to in connection with Plaintiff's Exhibit 47.

A. Yes, it is a copy of the same drawing.

Q. And, therefore, it was made under your over-all supervision and direction?

(Testimony of John N. Wolfram.)

A. That is correct.

Q. Now, will you proceed to describe the drawing, using the nomenclature or terminology that appears in longhand upon Plaintiff's Exhibit 48?

A. This drawing is of a tube coupling or fitting, such as we have been talking about, and includes a body, which is marked as a body. At the one end of the body is a beveled surface, against which the flare of a tube is engaged. The tube is so marked.

The body has screw threads adjacent the beveled end, and the nut has internal screw threads inter-engaged with the body threads.

Surrounding the tube is a part labeled "sleeve," and which has an inner chamfered end, which engages the outer face of the flare of the tube. The sleeve has an enlarged [217] head at this end and the head has a surface labeled "sleeve shoulder," which is engaged by a surface on the nut, which is labeled "nut shoulder."

The purpose of these shoulders is to provide engagement between the nut and the sleeve, so that as the nut is threaded onto the body, the nut shoulder will engage the sleeve shoulder and drive the sleeve against the flare of the tube and press the latter into sealing engagement with the beveled end of the body. [218]

Q. I note upon the drawing, Plaintiff's Exhibit 48, the term "Sleeve Head Angle," with an arrow thereon; is that the sleeve head angle that you were referring to in connection with the drawings that

(Testimony of John N. Wolfram.)

you yourself made earlier?

A. Yes, that is correct.

Q. Is this drawing that you have, Plaintiff's Exhibit 48, a rather accurate dimensional enlargement of a physical Parker fitting?

A. Yes, it is very accurate. The original drawing was made, I think it was ten times scale, and this is about five times scale. That is, the reproduction was one-half of the original, so that this drawing should be quite accurate.

Q. In other words, it was made a little more than illustrative, it was made as an accurate dimensional drawing?

A. That is correct.

Q. Now, will you take the drawing, Plaintiff's Exhibit 48, and also the drawing Plaintiff's Parker Patent 2,212,183, Plaintiff's Exhibit 1, and compare the various parts, the sleeve head angle and the other terminology appearing on Plaintiff's Exhibit 48?

A. On Exhibit 48 we have the part labeled "Body" and this body coincides with the part given the numeral 5 as shown in Figure 1 of the patent.

The part which is labeled "Tube" in Exhibit 48 coincides [219] with the part designated by the numeral 8 in Figure 1 of the Parker patent.

The portion of the tube designated by the lead line leading from the word "Flare" in Exhibit 48 coincides with the flared tube portion 9 of the Parker patent.

The part labeled "Nut" in Exhibit 48 coincides

(Testimony of John N. Wolfram.)

with the part designated by the numeral 12 in Figure 1 of the patent.

The part labeled "Sleeve" in Exhibit 48 coincides with the part designated by the numeral 16 in the Parker patent.

The surface of the sleeve head indicated by the lead line from the words "Sleeve Head Angle" in Exhibit 48 coincides with the surface 21 as it appears in the Parker patent.

The surface of the sleeve, which is labeled "Sleeve Angle" in Exhibit 48, coincides with the surface labeled 18 in the Parker patent.

The surfaces labeled "Sleeve Shoulder and Nut Shoulder" in Exhibit 48 correspond with the surfaces adjacent the lead lines from the numerals 20 and 15 in the Parker patent.

Mr. Freeman: I want to offer in evidence the physical specimen of No. 8 Parker fitting as Plaintiff's Exhibit No. 45.

The Court: It may be received. Didn't you introduce that one?

Mr. Freeman: It was not yet offered. I just want to be safe, your Honor. [220]

(The device, heretofore marked Plaintiff's Exhibit 45, for identification, was received in evidence.)

Mr. Freeman: I want to offer as Plaintiff's Exhibit No. 46 the size No. 8 fitting of Parker with the section cut out.

The Court: It may be received.

(Testimony of John N. Wolfram.)

(The device, heretofore marked Plaintiff's Exhibit 46, for identification, was received in evidence.)

Mr. Freeman: And as Plaintiff's Exhibit No. 47 the black and white drawing corresponding in outline to the drawing of Plaintiff's Exhibit No. 48.

The Court: It may be received.

(The drawing, heretofore marked Plaintiff's Exhibit 47, for identification, was received in evidence.)

Mr. Freeman: I am just going to get over into the defendants' units.

The Court: Maybe we had better wait and not worry the defendant over night.

Mr. Freeman: I told the defendant we might have spoiled their Saturday afternoon and Sunday.

The Court: It is 4:00 o'clock, and I think it is about time that we recess. We will recess now until 10:00 o'clock tomorrow morning.

(Whereupon, at 4:00 o'clock p.m., Thursday, June 15, 1950, an adjournment was taken to 10:00 o'clock a.m., Friday, June 16, [221] 1950.)

Friday, June 16, 1950, 10:00 A.M.

The Clerk: The Parker Appliance Company vs. Irvin W. Masters and Joseph C. Collins, further trial.

Mr. Freeman: Will you mark this for identification, please?

The Clerk: No. 49 for identification.

(The drawing referred to was marked Plaintiff's Exhibit No. 49 for identification.)

Mr. Freeman: Mr. Wolfram.

JOHN N. WOLFRAM

the witness on the stand at the time of adjournment, having been previously duly sworn, resumed the stand and testified as follows:

Direct Examination

(Continued)

By Mr. Freeman:

Q. I hand you a drawing marked Plaintiff's Exhibit 49 and will ask you to explain what it is.

A. Exhibit 49 is a photostatic copy of Fig. 2 of the Parker patent 2,212,183, except with the reference numerals removed.

Q. Now, will you proceed with that drawing and point out the portion of the sleeve head which has what we might call the greatest amount of expansion, the part that has little or no expansion, or, as [223] the patentee says, limited expansion, and then the portion that should have no expansion?

I am going to ask you to take the drawing and divide it into three zones.

A. The portion of the sleeve——

Q. First, I am wondering if you will draw the

(Testimony of John N. Wolfram.)

three lines or draw the lines that bring about the three zones. A. (Witness complying.)

Q. Now, will you please conform the judge's copy just as you have indicated on Plaintiff's Exhibit 49 for identification?

A. (Witness complying.)

Q. Now, will you tell us what you have illustrated on the drawing, Plaintiff's Exhibit 49 for identification, and point out wherein the patent is applicable to the three zones which you have marked A, B, and C?

A. I have drawn three horizontal lines across the sleeve and have labeled the portions of the sleeve that are divided off by these three lines as zones A, B, and C.

Zone C is the portion of the sleeve head which undergoes the greatest amount of expansion because of the pivoted movement which I discussed yesterday.

In the Parker patent 2,212,183, on page 2, column 1, beginning with line 43, it is stated:

“In other words, the inner flare surface [224] of the sleeve will yieldingly clamp the flared tube end.”

This indicates that the portion of the sleeve which engages the flare of the tube yields and will yieldingly clamp the flared tube end. This is the portion which I have indicated as zone C.

Also in the patent in column 2, beginning with line 14, it is stated:

(Testimony of John N. Wolfram.)

“It will be observed by reference to these figures that during the assembly of the coupling the nose 19 alone first contacts the outer surface 11 of the tube flare, and upon continued application of end thrust by the screwing on of the member 12 and engagement of the clamping shoulders 15 and 20, the head 17 will be spread or displaced radially outwardly to store gripping tension in said head and move forwardly along the flared end of the tube to cause the clamping surfaces 11, 18 and 7, 10 to tightly contact throughout the whole of their respective areas.”

This description again refers to the yielding or expansion of the lower end of the sleeve, which I have marked in Exhibit 49 as zone C, to store up the hoop or gripping tension.

Q. I think you said column 2. You mean page 2 of the patent? [225]

A. I am sorry. It is page 2, column 1.

On Exhibit 49, there is another section of the sleeve head. It is the section at the upper end of the head, which I have labeled as zone B. In the Parker patent, on page 2, column 1, it is stated, beginning with line 43:

“In other words, the inner flare surface of the sleeve will yieldingly clamp the flared tube end while unlimited expansion of that portion of the head adjacent the clamping shoulder will be prevented.”

The last portion of this statement indicates that

(Testimony of John N. Wolfram.)

this upper portion of the sleeve head, which I have marked off as zone B, undergoes only a limited amount of expansion. Expansion is desired in the lower end of the sleeve in the zone marked C, since that is the portion which engages the flare of the tube. Expansion is not particularly desired or necessary in the zone marked B and means are provided in the coupling for preventing unlimited expansion of the zone as mentioned in the patent. [226]

On Plaintiff's Exhibit No. 49 I have also labeled a portion of the sleeve as zone A. It is not desirable to have expansion in this zone.

I do not at the moment find a specific reference in the patent to this particular portion of the sleeve, but it is obvious from engineering considerations that expansion is not particularly desired in this zone, and the coupling is constructed in such a manner that expansion does not occur.

Q. So that expansion that is desired is within the area that you have marked zone C?

A. That is correct.

Q. And that zone includes the inclined inner surface of the sleeve?

A. That is correct.

Q. And, likewise, that zone includes the portion between the sleeve head and the inner wall of the nut that is greatest in area?

A. That is correct.

Q. And with respect to zone B that includes the shoulder-to-shoulder contact between the sleeve head and the nut?

A. That is correct.

Q. And in that zone B, the outer wall of the

(Testimony of John N. Wolfram.)

sleeve is in closer communication or approaches more closely the inner wall of the nut? [227]

A. That is correct.

Q. And above the zone B that portion of the sleeve which is not included as part of the head proper encompasses or surrounds the tube to be coupled?

A. That is correct, it closely fits the tube.

Q. And that portion of the sleeve which is in zone A, that is, the inner wall which encompasses the tube, likewise continues on down and stands against the tube close to the heel of the flare, that is, the portion of the flare which connects to the tube proper?

A. That is correct.

Q. And the inclined surface of the sleeve extends from that straight line or straight wall connection for engagement with the outer wall of the flare of the tube?

A. That is correct.

Q. Does the Parker patent, following your explanation of zones C and B, tell why it is desirable to have the parts so proportioned and arranged and the result attained thereby?

A. Yes. On page 2, column 1, beginning with line 48, it is stated:

“With the coupling parts proportioned and arranged as herein described, remarkably better results in the way of efficient clamping are obtained than have been obtainable heretofore. Wider seating areas are provided, all danger of the [228] inner sleeve head sticking in the outer

(Testimony of John N. Wolfram.)

sleeve or nut is avoided, and a measure of spring tension is stored in the sleeve head 17 by the spreading thereof which is found to be very effective in aiding retention of the desired clamped relation of the tube flare surfaces and the surfaces which they engage.”

Q. And Plaintiff’s Exhibit 49, I think you stated, was a photostatic copy of Figure 2 of the patent drawings with reference numerals omitted?

A. That is correct.

Mr. Freeman: I want to offer as Plaintiff’s Exhibit 49 the photostat referred to by the witness in connection with his testimony having to do with zones C, B, and A.

The Court: It may be received.

(The drawing, heretofore marked Plaintiff’s Exhibit 49, for identification, was received in evidence.)

The Court: I wonder if I could ask counsel a question.

Mr. Freeman: Yes.

The Court: Assuming that that was in the public domain—I say “assuming,” I don’t know whether it was or not—the beveled part of the body that engages with the flare of the tube; and assuming, also, that tubes had been flared, and that is in the public domain; assuming also that the use of a sleeve was in the public domain; then, in reality, the [229] thing that you actually claim is the fact that using all these things in the public domain a remarkably

(Testimony of John N. Wolfram.)

better result in the way of efficient clamping is obtained, is that correct?

Mr. Freeman: No, that is not quite correct.

The Court: Maybe I had better ask opposing counsel.

Mr. Huebner: Your Honor is absolutely right, as far as we are concerned, and that is what we eventually expect to demonstrate. Not that he obtains any better result, but that his whole patent is predicated on a claim that it does, and it has no foundation.

The Court: Now, let me ask you a question. You have injected yourself in this argument. Assuming that everything I have said is correct, and assuming that they have combined these things that are in the public domain, and as a result of the combination have devised a more efficient way, a way of obtaining better results in the coupling, are they entitled to a patent?

Mr. Huebner: No. If they have taken—may I take it in steps? If a patentee has taken an element here, and an element there, and another element somewhere else, and assembled them in a new way, or has improved their form so that they achieve as a unit or combination a new and unexpected result, and in doing so has exercised more than engineering skill or the skill of the art, then he may be entitled to the patent. But if he takes all these old parts and puts [230] them together and merely utilizes the information that is already known to the trade, and exercises nothing more than engineering skill or the skill of a designer, then he is not entitled to a

(Testimony of John N. Wolfram.)

patent and it should be declared invalid for want of invention.

The Court: Now, let me ask you, supposing that this beveled surface of the body is in the public domain, that is, the beveling of it, not the angle, but the beveling of it; supposing the flare of the tubing is in the public domain, that is, the flare, not the angle; supposing the use of the sleeve is in the public domain, and that the sleeve is used, but not the angle of the head of the sleeve; now, the Parker people by taking these three things that are in the public domain——

Mr. Huebner: And the nut, too?

The Court (Continuing): ——and the nut. ——changed the bevel upon the top of the body and changed the bevel upon the tube, changed the angle upon the sleeve, and by making those changes they have used things that were fundamentally in the public domain, but they have changed it by some experimentation.

Mr. Huebner: You are assuming they have changed the exact dimensions or shape?

The Court: Yes, by experimentation or by engineering facilities or intuition. And as a consequence they have [231] produced a coupling that is much more efficient than former couplings, are they then entitled to a patent?

Mr. Huebner: No, they are not, unless what they have done goes beyond engineering skill. If given the information which your Honor has presumed is known to the art, and the witness has even acknowl-

(Testimony of John N. Wolfram.)

edged that these types of fittings generally were old, given these parts and given their relationship, he is not entitled to a patent or to have his patent sustained unless in the opinion of the court those engineering details or changes that have been made couldn't have been made by any ordinary man skilled in this art if given the problem to make a tight fitting. [232]

The Court: Now, any engineer of any—shall I say extraordinary ability or just more than average ability—more than average ability, when he sees something done, can duplicate it.

Mr. Huebner: That is right.

The Court: In other words, if he sees it done, it is easy to go and say, "I could have done that." But it takes something beyond the ordinary to first conceive. The Japanese are very grand——

Mr. Huebner: Copyists.

The Court: Copyists. They can take anything and copy it. They can follow it. But they can't conceive, they can't initiate.

Mr. Huebner: As far as you have gone, your Honor, but there are more facts we will unfold, but as far as you have gone in your statement of assumed facts, then it becomes a judicial function to consider whether what the man did, what Mr. Parker did, involved more than what a good engineer would do if given a problem to supply a fitting to the customer's wanting.

The Court: Well, Mr. Freeman, I didn't want to take the ball away from you. Now I will come

(Testimony of John N. Wolfram.)

back to you. Assuming that the only thing that Parker has done in this particular case is to change the angle of the bevel upon the body and upon the tube, change the angle of the sleeve—— [233]

Mr. Freeman: That is the outside angle. Let's call that the outside wall angle.

The Court: All right, the outside wall angle. Taking these things, the bevel on the body was known, the flaring of the tubing was known, the use of the sleeve was known, but you have changed the way they went together, either by intuition or by engineering skill, and as a result, you have been able to produce a much more efficient coupling. Are you entitled to a patent?

Mr. Freeman: If your Honor will recall, in my opening statement I told your Honor that the use of the nut, the sleeve, the flared tube, and the body member, were old. That is rather well illustrated in one of Parker's own patents. That is the patent that is referred to in the first paragraph of the patent in suit, that is the 1893 patent, which has now expired. I told your Honor, in answer to a question propounded to me by defendants' counsel, that as far as that patent was concerned, we would never assert it against them, we haven't asserted it against them, and they are as free as all outdoors to make that kind of device. But they don't want to make that kind of a device. They want to make one that does include an outside angle, and that does give us what this witness has just referred to as zones A, B, and C.

If they don't want to make zone C, they want

(Testimony of John N. Wolfram.)

to make one like the 1893 Parker patent, which is the one that the [234] Army and Navy and commercial aircraft people used until Parker came along and made it possible to make the kind of a fitting we have here, if they don't want to make the kind that is in the public domain, they can copy the 1893 Parker patent, and we say amen to them.

The next thing, will the commercial aircraft people fly or buy, first, fittings of that kind and use them on their planes when they can buy the fitting that is now made by the defendants, is now made by the plaintiff, and use those fittings with the added degree of safety?

The Court: You haven't answered my question. You have given me a good argument.

Mr. Freeman: I did not mean to argue, your Honor, because now is not the time to argue.

The Court: That's right.

Mr. Freeman: I have endeavored to answer your question.

The Court: I am trying to get the philosophy. The fact of the matter is, if I understand your statement, really the thing here in controversy is the sleeve and the angle.

Mr. Freeman: On the outside of the sleeve.

The Court: On the outside of the sleeve.

Mr. Freeman: Right.

The Court: And because you have devised this particular angle and, of course, with the eye, you can't tell it is an angle—— [235]

(Testimony of John N. Wolfram.)

Mr. Freeman: It is hard to see, but they will admit there is an angle on it.

The Court: Because you have devised this angle, you think you are entitled to the patent.

Mr. Freeman: Yes, sir.

The Court: In other words, this is really the lawsuit here (indicating).

Mr. Freeman: Right.

The Court: Where the witness has just testified.

Mr. Freeman: That is right; yes, that is right, your Honor.

The Court: That is all I want to know.

Mr. Freeman: That is exactly correct.

The Court: That is all I want to know about that.

Mr. Huebner: He still didn't answer your Honor's question, because you had in it the comparison between engineering skill or invention, and we probably could get together on the law. If your Honor decides only engineering skill or the skill of the art is involved, then there is no invention. As a statement of law, I would suggest Mr. Freeman say **yes or no**.

The Court: Let's assume this, that we take the sleeve here and the outside collar of the sleeve was straight, perpendicular, always been used that way. It gave a coupling, but it was not entirely satisfactory. Nobody knew what the [236] trouble was. They experimented. Finally, the Parker people determined to try a certain angle, and it worked. That's all they did, is to change the outside collar of the sleeve.

(Testimony of John N. Wolfram.)

Mr. Huebner: From a straight one to an angle.

The Court: From a straight one to an angle. Aren't they entitled to a patent?

Mr. Huebner: If there was that problem, and if the others had it, and if this was a sudden flash of inspiration or genius, that instead of making it straight, you made an angle and you got a wonderful new result, then they might be entitled to a patent. But airplanes are flying today. Constellations are flying today without this patent. There wasn't any real problem. There wasn't any flash of genius. It was just an engineering idea put on there in order to go through the Patent Office and get a patent.

The Court: Supposing that they had this straight, no curve at all. They tried to make the circumference at the bottom larger than at the top. It didn't work. They tried to make it smaller at the bottom than the top. It didn't work. They experimented with different angles to see whether or not one particular angle would work better than another angle, and they finally came upon this particular angle. Experimentation, tried and rejected it, tried and rejected it, and they finally came upon this particular angle. Assuming, also, which you may not be willing to admit, but I think the [237] evidence so far indicates, that this particular angle gives a better connection, gives a better coupling, it is more desirable. Aren't they entitled to the patent?

Mr. Huebner: Your Honor, there is a fallacy

(Testimony of John N. Wolfram.)

in the very premise of this assumption that this particular angle, and I use that in quotes, has not been established. We don't know yet what this particular angle is. It is not given in the patent.

There is no degree whatever specified in the patent. It is left entirely up in the air. So I don't know.

The Court: Well, you have got the prints, haven't you?

Mr. Huebner: Not from the patent.

The Court: You got them from Mr. Parker.

Mr. Huebner: We got prints from—perhaps we got some prints from Mr. Parker, but they were government approved prints and they specified an angle, but that angle didn't come out of the patent.

The Court: Let me ask you this. The contract that your clients got from the government specified a certain particular angle on the collar of the sleeve?

Mr. Huebner: In effect, yes, because the government said, "We want these made according to the dimensions shown on these AN sheets.

The Court: And they got those from [238] Parker?

Mr. Huebner: Some of them may have come from Parker. Some of them may have come from the government. They came from different places.

The Court: Well, this is the lawsuit.

Mr. Huebner: That is part of it, surely.

The Court: I mean as far as the patent is concerned.

(Testimony of John N. Wolfram.)

Mr. Huebner: That is one of the most important parts of the lawsuit, and what we will show, among other things, is that the patent does not teach what they claim is now the invention. You can't say in a patent, "I use an angle and I claim an angle so shaped that," and sustain it. That is not in such clear, concise and exact terms as to enable anyone skilled in the art to practice it.

The Court: Suppose they had said, "I claim an angle of 2 per cent"?

Mr. Huebner: If that involved invention, that would be specific. Two degrees perhaps you mean.

The Court: All right, two degrees.

Mr. Huebner: If an angle of two degrees of a circle was something that they found suddenly or by experiment, and nobody had ever thought of it before, and they did the job, and they said so in the patent, in their claims, then they might be entitled to sustain it, but when they leave their patent wholly void of reference to what the angle should be, so that they can catch people coming and going if their patent [239] is held up, then they are not entitled to be sustained.

The Court: You never filed a patent to catch people coming and going yourself?

Mr. Huebner: Yes, surely, your Honor.

Mr. Freeman: All they have to do is make that wall straight and that would end the lawsuit. They don't want to do that. They could follow the earlier patent.

The Court: Well, now, wait a minute. Let's see

(Testimony of John N. Wolfram.)

whether you are not taking in too much territory. Couldn't they make that wall there at an angle other than the angle that you make it?

Mr. Freeman: No. The patent doesn't say the specific angle, your Honor. The patent says it is at an angle.

The Court: Can I ask counsel this: Can it be stipulated, can it be agreed to between counsel that up until the time of this patent, nobody claimed an angle of any kind or used an angle of any kind? You don't have to bind yourselves on this, if you don't want to.

Mr. Huebner: I think there was a reference, your Honor, and I don't want to misrepresent to the court without checking back on it.

The Court: If you can find in some expired patent or some patent that is in the public domain a reference to the angle, it might clarify the situation, or if we can agree that the Parker patent is the first one that said anything about the [240] angle, that will clarify the situation.

Mr. Huebner: I am afraid, your Honor, we are not at liberty to so stipulate because my recollection is there was something.

The Court: I don't want you to stipulate anything that is going to be detrimental to you or your clients.

Mr. Huebner: May we leave that open?

The Court: We will leave that open. But, however, I wish you would investigate over the week-end and come back here on Monday and tell me

(Testimony of John N. Wolfram.)

whether or not you can find a patent that is in the public domain that says anything about this angle.

Mr. Huebner: All right. We will check our notes and our files.

The Court: Fine. I have been looking for the lawsuit, I think I have found part of it now.

Mr. Freeman: Primarily, the lawsuit, your Honor, is in the three claims of the patent. I don't want to argue the case, because there is a proper time for that. I do want to say that the prior Parker patent shows a straight wall outside on the sleeve.

The Court: Can you tell me this from your own knowledge, from the investigation you have made in this case. Have you ever found a patent that is in the public domain that ever claimed an angle in the collar of the sleeve? [241]

Mr. Freeman: If we found anything that had these three zones in it, that is, just brought about by the angle on the sleeve and by the closeness between the upper portion of the sleeve and the outside of the nut, we would not have been in court.

The Court: Now you are talking to me about the results obtained when you talk about the three zones.

Mr. Freeman: No, I am not, your Honor. When you take and make a change in the angle of the sleeve, you do more than just that. You then bring about a cooperative relationship that gives you the widest possible seat or contact between the shoulder of the sleeve and the shoulder of the nut, so

(Testimony of John N. Wolfram.)

that you can confine the overall area of the [242] fitting.

The Court: Yes, I know, but you haven't answered my question. Is there any patent that you know of in the public domain——

Mr. Freeman: The answer is no.

The Court: ——that says anything about the angle in the collar of a sleeve?

Mr. Freeman: The answer is no.

The Court: Very well. Excuse me for breaking in, Mr. Freeman.

Mr. Freeman: Will you mark this Exhibit 50, please?

(The chart referred to was marked Plaintiff's Exhibit 50, for identification.)

Q. (By Mr. Freeman): I have handed you a chart marked for identification as Plaintiff's Exhibit No. 50. Will you please tell us, first, the make-up of Figures 1, 2 and 3 there shown?

A. The three figures are a photostat of the three figures of the drawing with the reference numerals of the patent removed, and with other reference numerals substituted.

Q. So that your statement is accurate, the photostat is somewhat enlarged, the figure is somewhat enlarged? A. Yes, I believe it is.

Q. I note certain reference characters in a circle on Figures 1, 2 and 3; will you please explain what they refer to? [243]

A. The reference numerals which are on the Fig-

(Testimony of John N. Wolfram.)

ures 1, 2 and 3 coincide to or with elements referred to in the written material which is a part of the photostat and which represents the wording of claim 1 of the patent.

Q. Now, will you tell us just what is referred to, that is, connect up claim 1 and the wording that you have there, together with the indicating numbers, along with the indicating numbers on Figures 1, 2 and 3?

Mr. Huebner: Your Honor, I want to interpose a formal objection simply to protect our own position. Ordinarily, or, let me say, in a good many patent cases courts do not permit expert witnesses to discuss the claims and the language of the claims as applied to the patent disclosure or to the alleged infringing device. Some courts do. I interpose the objection that what the witness may say is within the province of the court, so that I will not be confronted later with an objection on the part of counsel to questions that I may want to ask.

The Court: Your objection is overruled. I think this witness can explain the claims by this diagram a great deal better than I can by reading the claims. I have read the claims and I still don't understand them.

Mr. Huebner: Then I will have the same privilege, I assume, in cross-examination and with our witnesses?

The Court: Absolutely. [244]

Q. (By Mr. Freeman): Proceed.

A. The claim starts off with the words "In a

(Testimony of John N. Wolfram.)

coupling for," then we have the numeral 1 in a circle. The numeral 1 has been interposed at this point to refer to the expression which follows it, namely,

"tubes having the," or more simply "tubes."

You will note that in the figure the numeral 1 shows a lead line to the tube, thus the numeral indicates the tube in both the figures and in the description.

The claim then goes on to state:

"tubes having the ends thereof flared,"

and here before the word "ends" the numeral "2" indicates the end or flared end of the tube, and it will be noted that in the figures the numeral also indicates the flared end of the tube.

The claim then goes on with the numerals 3, 4:

"coupling members having threaded engagement with each other,"

3 and 4 then referring to the coupling members, 3 being the body as shown in Figure 1 and 4 being the nut.

The claim goes on with the numeral 3, then:

"one of said coupling members having a 5 seat associated therewith adapted to engage the 6 inner face of the 2 flared end of the 1 [245] tube"

In this part of the claim the numeral 5 represents the seat on the body as shown in Figure 2; the numeral 6 indicates the inner face of the flared end of the tube.

The claim goes on further to state that:

(Testimony of John N. Wolfram.)

“and the other coupling member having a clamping shoulder,”

The other coupling member is the part 4 as shown in the drawings, and the clamping shoulder is designated by the numeral 7, and can be seen in Figure 2.

The claim further goes on:

“a sleeve surrounding said tube and having a solid head”

8 indicates the sleeve, as shown in Figure 1, and 9 indicates the solid head as indicated in Figure 1.

The claim further goes on:

“provided with a shoulder against which the clamping shoulder of the coupling member engages,”

The numeral 10 indicates the shoulder of the sleeve, and the numeral 7 is the shoulder on the nut as shown in the drawings.

The claim goes on:

“said head having the inner surface thereof provided with a coniform flare so shaped that the initial contact of the head with the [246] flared end of the tube is at the free end of the head”

Now, the inner surface 11 referred to in the claim is the inner surface of the sleeve itself, as clearly indicated in Figure 2. This part of the claim states that this inner surface of the sleeve is coniform and so shaped that the initial contact of the head, meaning the head of the sleeve, with the flared end

(Testimony of John N. Wolfram.)

of the tube, is at the free end of the head of the sleeve.

In my testimony yesterday I pointed out that the patent indicates that the free end of the head is the lower end of the sleeve head as viewed in the drawings.

The claim goes on to state:

“and adjacent the outer end of the flared end of the tube,”

This refers to the point of contact or initial contact to which we have just referred.

The claim then goes on:

“whereby during the clamping action said head will be expanded and moved forward along the flared end of the tube into intimate contact with the outer surface thereof throughout substantially the entire extent of the flared surface on the sleeve head.”

This part of the claim states that the sleeve head expands and moves forwardly, which means that it moves downwardly as [247] viewed in the drawings along the flared end of the tube, until the inner flared surface 11 of the sleeve is in full contact with the flare, rather than just the initial toe contact.

Mr. Freeman: I think yesterday I forgot to offer among the drawings which collectively comprised Exhibit 28 the first one, which is 28-A.

The Court: It may be received.

(The document referred to was marked

(Testimony of John N. Wolfram.)

Plaintiff's Exhibit 28-A, and was received in evidence.)

Mr. Freeman: Will you mark this, please?

(The document referred to was marked Plaintiff's Exhibit 51, for identification.)

Q. (By Mr. Freeman): I hand you a drawing or chart which has been marked Plaintiff's Exhibit 51 for identification, which specifies claim 2. Will you please describe the application of claim 2 to the drawings illustrated on the chart?

A. This drawing is also a photostat of the patent drawings somewhat enlarged and with different reference numerals substituted. Claim 2 is attached and copied from the patent.

The claim states:

"In a coupling for tubes"

1 being the reference numeral for tubes, again, and 1 appearing [248] in the drawings.

"having the end thereof flared,"

2 indicating the flared end of the tube.

"coupling members having threaded engagement with each other,"

3 being the body coupling member, and 4 being the nut coupling member. [249]

"one of said coupling members having a seat associated therewith for engaging the inner flare of the flared end of the tube . . ."

5 indicates the seat or beveled surface of the body. 6 indicates the inner surface of the flare of the tube. The claim then continues:

(Testimony of John N. Wolfram.)

“ . . . and the other coupling member . . . ”
meaning the nut 4.

“ . . . having a clamping shoulder and an inner wall.”

The clamping shoulder is shown at 7 and the inner wall is shown at 8. The claim then goes on:

“ a sleeve surrounding said tube and having a solid head capable of radial expansion during the clamping action,”

9 indicates the sleeve and 10 is the head portion, and it is this head portion which it is stated as being capable of radial expansion during the clamping action. The clamping action is the time when the wrench is applied to the nut to bring it to a tight position. The claim then goes on:

“said head being provided with a clamping shoulder against which the shoulder of the coupling member engages”

The head is the head of the sleeve and it is referred to by the numeral 10, and the clamping shoulder is indicated by the [250] numeral 11 and is the clamping shoulder of the sleeve, and is engaged by the clamping shoulder 7 of the nut. The claim then goes on:

“and an inner flare surface for engaging the outer flared end of the tube,”

referring back, this part that I have just quoted, is still a part of the sleeve head. 12 is the number which indicates the inner surface of the flared part of the sleeve head, and it engages the outer surface of the tube flare. The claim then goes on:

(Testimony of John N. Wolfram.)

“said clamping shoulder being spaced a distance back of the inner flare surface.”

The clamping shoulder referred to is that on the sleeve as indicated by the numeral 11, and it is stated that this shoulder is spaced a distance back of the inner flare surface 12 of the sleeve head. The claim then goes on:

“the outer surface of said head and the said inner wall of the coupling member”

We are now referring to the outer surface 13 of the sleeve head and the inner wall 8 of the nut.

“being so shaped relative to each other that when the sleeve head expands during the clamping action, they will contact only in the region of the clamping shoulder.”

That refers to the clamping shoulder 11 of the sleeve head. [251]

“the remaining portion of the head being free from contact with the coupling member”

or nut 4

“whereby the clamping force of the head against the tube is determined by the spring tension of the metal forming said head.”

This indicates that the free end of the head, which we have already said was the lower end of the sleeve head as viewed in the drawings, is so shaped that it is free from contact with the side wall of the nut, so that the clamping pressure applied by the head of the sleeve to the flare is determined by the hoop tension or spring tension with which the head becomes loaded as it expands.

(Testimony of John N. Wolfram.)

The Court: I think before we proceed further, we will take the morning recess. We will recess until 15 minutes after 11:00.

(Recess.)

Mr. Freeman: I am going to offer in evidence as Plaintiff's Exhibit 51 the photostat of the patent drawings and claim 2 of the patent just referred to by the witness.

The Court: It may be received.

(The document referred to was received in evidence and marked Plaintiff's Exhibit No. 51.)

The Court: Did you offer in evidence Exhibit No. 50?

Mr. Huebner: No, he didn't. [252]

The Court: I don't think you did, either.

Mr. Freeman: I will also offer as Plaintiff's Exhibit 50 the chart of claim 1 and the photostat of the patent drawing referred to by the witness.

The Court: It may be received.

(The exhibit referred to was received in evidence and marked Plaintiff's Exhibit No. 50.)

Mr. Freeman: I will ask that this be marked as Plaintiff's Exhibit 52 for identification.

The Clerk: No. 52 for identification.

(The document referred to was marked Plaintiff's Exhibit No. 52 for identification.)

(Testimony of John N. Wolfram.)

Q. (By Mr. Freeman): I hand you a chart marked Plaintiff's Exhibit 52 for identification, which has reference to claim 3 of the Parker patent, and will ask you to describe it substantially as you did with respect to Plaintiff's Exhibits 50 and 51.

A. This again is a photostat somewhat enlarged of the figures of the patent drawing with different reference numerals substituted and with the wording of the claim 3 attached. The claim states:

“In a coupling for tubes”

1 being the tube

“having the ends thereof flared”

2 again is the flared end of the tube.

“coupling members having threaded engagements [253] with each other”

3 being the body member and 4 being the nut.

“one of said coupling members having a seat associated therewith”

The coupling member referred to is the body 3 and the seat of the beveled portion 5.

“adapted to engage the inner face of the flared end of the tube”

The inner face of the flared end of the tube is indicated by the number 6. The claim then goes on:

“and the other coupling member having a clamping shoulder,”

The other coupling member referred to is the nut 4 and the clamping shoulder is indicated by the numeral 7. The claim then goes on:

“a sleeve surrounding said tube and having a solid head provided with a shoulder against

(Testimony of John N. Wolfram.)

which the clamping shoulder of the coupling member engages,”

The sleeve is indicated by the number 8 and it has a solid head indicated by the number 9 and 10 indicates the shoulder of the sleeve head, and 7 again indicates the clamping shoulder of the nut 4. [254]

The claim goes on:

“said head having the inner surface thereof provided with a coniform flare so shaped that the initial contact of the head with the flared end of the tube is at the free end of the head and adjacent the outer end of the flared end of the tube,”

The head of the sleeve referred to is indicated by the number 9, and the inner surface of the head is indicated by the number 11, and it is this surface 11 which is provided with a coniform flare so shaped that the initial contact of the head of the sleeve is with the flared end of the tube at the free end or lower end of the head as viewed in the drawing, and adjacent the outer or, again, the lower end of the flared end of the tube as viewed in the drawing.

The claim then goes on:

“the outer surface of said head”

The outer surface is indicated by the number 12, and it is the outer surface of the sleeve head 9.

“and said inner wall of the coupling member being so shaped relative to each other that when the sleeve head expands during the clamping action, the portion of said head contacting with the flared end of the tube is at all times out

(Testimony of John N. Wolfram.)

of contact with the coupling member [255] whereby the clamping face of the head against the tube end is determined by the spring tension of the metal forming said head."

In the third last line of the claim, I believe that is an error, that the word "face" following the word "clamping," should be the word "force."

This portion of the claim indicates that the inner wall 13 of the nut, and the outer surface 12 of the sleeve head, are so shaped relative to each other that when the sleeve head expands during the clamping action the portion of the head contacting with the flared end of the tube, which is the lower portion of the sleeve head, or that portion which we identified in another drawing as zone C, is at all times out of contact with the coupling member 4, which is the nut, whereby the clamping force of the sleeve head against the tube is determined by the spring or hoop tension of the metal in the head of the sleeve.

Mr. Freeman: I offer in evidence as Plaintiff's Exhibit 52 the claim chart of claim 3 of the Parker patent.

The Court: It will be received.

(The chart, heretofore marked Plaintiff's Exhibit 52 for identification, was received in evidence.)

Mr. Freeman: Will you mark this, please?

(The document referred to was marked Plaintiff's Exhibit 53, for identification.) [256]

(Testimony of John N. Wolfram.)

Q. (By Mr. Freeman): I hand you a chart marked for identification Plaintiff's Exhibit 53, and will ask you to take the drawing portion thereof and compare it with Plaintiff's Exhibit 6.

Mr. Huebner: Your Honor, I object to that on the ground there is no foundation laid. The question assumes a fact not in evidence, that this drawing here is a true drawing of the accused Masters fitting. It is mistitled, which is not the primary point. It may be an assembly of parts of the type made by Masters, but the important thing is that there is no tie-up, as a foundation for this question, showing that this is a drawing made in accordance with the government specifications.

Mr. Freeman: You didn't, apparently, understand my question. I asked him to compare it with a Masters fitting, which I handed him, which is a fitting that Mr. Masters gave me, and which is in evidence as Plaintiff's Exhibit No. 6.

The Court: Overruled.

The Witness: The drawing which I have, which is entitled "Masters' Fitting With Double Angle Sleeve," is an enlarged scale drawing corresponding to the physical exhibit, Plaintiff's Exhibit No. 6.

The Court: Now may I ask, Mr. Freeman, if Plaintiff's Exhibit 6, which you claim to be a Masters fitting, did you get the exact fitting in toto from Masters, or did you get [257] the parts?

Mr. Freeman: It was just handed to me—we asked for them—in response to an inquiry. And they were handed to me collectively.

(Testimony of John N. Wolfram.)

The Court: They weren't handed to you piece-meal?

Mr. Freeman: No. I got complete fittings, and the fittings were then assembled. They were handed to me, three of them were tagged. I asked for three of each. They were handed to me. They were connected together. We put a tag through them. They were so marked. And we have cut up some of them, we have measured up some of them.

The Court: Were they handed to you during the deposition in this case?

Mr. Freeman: Yes.

The Court: During the deposition?

Mr. Freeman: Yes.

The Court: Is there a question pending?

(The last answer was read by the reporter.)

The Court: Proceed.

Q. (By Mr. Freeman): Will you please apply claim 1 of the Parker patent to the drawing forming a part of Plaintiff's Exhibit 53? [258]

Mr. Huebner: I still say, your Honor, he hasn't laid enough foundation to demonstrate that this is an accurate drawing of that fitting, if you want to call it a fitting, or assembly of a fitting.

The Court: I think possibly he hasn't laid the foundation that this is a drawing of Exhibit 6. The objection is sustained. I think he can lay a foundation.

Q. (By Mr. Freeman): Will you tell me about the makeup of the drawing forming a part of Plaintiff's Exhibit 53? What does it represent?

(Testimony of John N. Wolfram.)

A. Exhibit 53 is a drawing made under my direction in accordance with the specification sheets which are published by the government and which this fitting, Plaintiff's Exhibit 6, is an example of.

The Court: My understanding of the situation is that the defendants do not contend that they are not making these, at least the parts of the fitting, exactly like the so-called Parker fitting. In other words, I assume from the stipulations entered into, that the parts of the fitting which is made by Masters are identical with the parts of the fitting as made by Parker and, consequently, I assume that the claims of the Parker fitting could apply exactly to the Masters fitting.

Am I wrong?

Mr. Huebner: That is wrong, your Honor. I will clarify [259] it. The parts made by Masters according to government specifications are presumably identical to the parts manufactured by Parker according to government specifications. So much is probably correct, and I think I so stipulated earlier. That, however, is a mere comparison between the commercial device of Parker and the commercial device of the defendant, and is not a test. The test is whether the commercial device of the defendants meets or fulfills the definition of the claims of the patent, and that we absolutely deny.

So he has the burden at this point—if that is where he is going to bring it in—of establishing that this drawing, and that we deny, that this drawing is correct. He has got to establish, if he can, that

(Testimony of John N. Wolfram.)

the drawing actually does represent the AN specification, the government specification, under which Masters manufactures the parts.

The Court: He testified he made this drawing or the drawing was made under his supervision from so-called Exhibit 6.

Mr. Huebner: So far, so good. Actually, however, there is an inaccuracy that he hasn't yet explained.

Mr. Freeman: You will have an opportunity to cross-examine this witness.

Mr. Huebner: Let's get it cleared up here. There is no tube on the physical exhibit. He has got a tube in the drawing. [260]

The Court: Let me see the physical exhibit.

Mr. Huebner: Masters doesn't supply tubes and never did. Neither does Collins.

The Court: It is true there is no tube on Exhibit 6.

Mr. Freeman: Well, is it your position you do not infringe because you do not supply the tube?

Mr. Huebner: Our position is we don't infringe because we don't meet the terms of the claims.

The Court: I understand that one of the issues here is that the coupling as made by Parker isn't the coupling that is described in the patent.

Mr. Huebner: That is right, it is not.

The Court: You don't deny you are making exactly the same sort of coupling Parker is making?

Mr. Huebner: So far as he makes them under the AN standard specification.

(Testimony of John N. Wolfram.)

The Court: And if Parker does not make the coupling as described in the patent and you make the same kind of coupling as Parker does, then there is no infringement?

Mr. Huebner: That is correct. That is our position.

The Court: I am going to have to sustain the objection upon the ground that the drawing is not a drawing of Exhibit 6, that you have inserted something into the drawing that is not in Exhibit 6.

Q. (By Mr. Freeman): I am going to ask you to compare [261] the drawing with Plaintiff's Exhibit 7, which is a cut-away section of the same physical structure which has been in evidence as Plaintiff's Exhibit 6, and will ask you to compare it with the drawing, Plaintiff's Exhibit 53.

The Court: Before he answers, I wonder if I could ask counsel a question. It is your contention that the fitting as made by Parker is not in accordance with the claims of the patent?

Mr. Huebner: Yes, your Honor.

The Court: Is the defect that you contend is not followed, the fact that the patent does not indicate the degree of slope in the collar of the sleeve?

Mr. Huebner: That is only part of it your Honor. That lack of disclosure goes more to our attack on the validity, rather than non-infringement. I will go into it in some detail, if you would like, at this time.

The Court: No. I am just trying to find out, if I can, the issues in the case. I understood at the begin-

(Testimony of John N. Wolfram.)

ning of this case you raised the question that the claims were not satisfactorily described, they are too general.

Mr. Huebner: That is one point. That goes to validity. We say it makes the patent invalid. Then we say even if you take the claims as they read and you get an accurate illustration or accurate description of the AN fitting which Masters make, you will then discover that their claims do not [262] read on this fitting and, therefore, we do not infringe the patent.

The Court: Well, now, let's assume that the court would hold—of course, this is only an assumption, because I think it is too early for the court to form any conclusion, but let's assume that the court would hold that the description in the patent is sufficient, that is, it is clear, all the elements are there, and the court believes it is sufficient. Now, under that assumption, would you say that the reason you say that the fitting that Parker makes is not the fitting that is described in the patent is because there is nothing in the patent relative to the degree of angle in the collar of the sleeve?

Mr. Huebner: That goes directly and expressly to the question of infringement. That lack of particularity in the claim probably doesn't apply to that particular defense of non-infringement.

The Court: The reason I am asking—

Mr. Huebner: There are other things in the claim, though. We haven't had our turn yet, but there are other things in the claims that we will

(Testimony of John N. Wolfram.)

explain as we get on with our case, which are absolutely not found in the AN fitting.

The Court: Well, the reason I am asking you that question is I think it has been stipulated that the bevel on the top of the body—that a bevel on the top of the body and a [263] flared——

Mr. Huebner: Flared tube.

The Court: ——flared tube, and the use of the collar is in the public domain.

Mr. Huebner: Yes, a collar and nut. I think even the nut was included.

The Court: In the public domain?

Mr. Huebner: In the public domain.

The Court: So the only thing, as far as I have been able to ascertain, that is not admitted to be in the public domain is the way the collar of the sleeve has been milled or manufactured at an angle or at a degree.

Mr. Huebner: I think there are two things counsel for the plaintiff hasn't yet admitted to be in the public domain. One is the relation on the inside of the sleeve to the outside of the sleeve. I think it is still his contention that it was new for him to so shape those parts that the inside of the sleeve hits first down on the toe and near the extreme end of the flare. That is one thing.

The other thing, I believe he still contends is new and is in the patent, is the relationship between the outside of the sleeve head and the inside of the nut, where he has an angle in there, so that, as the patent says, when you tighten it up, you can expand and

(Testimony of John N. Wolfram.)

still not touch the walls of the sleeve, I mean touch the walls of the nut down near the end [264] of the sleeve.

Among other things, in trying to answer your question, I would say this, that one of our points in connection with non-infringement is that irrespective of what angle is employed, according to the patent, the way it is manufactured according to government specifications, it doesn't respond to the action that is called for. [265]

The Court: Well, if I understand your position, now I probably don't, but if I understand your position, if the patent as set forth says that this angle was to be a certain specific degree, and if the government had specified that certain degree, and you had come along and made fittings with that degree, then there might be a question of an infringement of a patent?

Mr. Huebner: As to the claim which had that particularity in it we might be held to infringe, and we might then have to relegate our attack on other grounds.

The Court: And then you contend because there is nothing in the patent to indicate the degree of slope, that the patent doesn't tie up as far as the degree of slope with the requirement of the government?

Mr. Huebner: And is, therefore, fatally defective for ambiguity under Section 4888 of the Revised Statutes.

(Testimony of John N. Wolfram.)

The Court: I just wanted to get your position clear if I could.

There was a question before the witness.

Mr. Freeman: I will reframe it, your Honor.

Q. (By Mr. Freeman): We were directing your attention to Plaintiff's Exhibit 7, which is a similar fitting to Plaintiff's Exhibit 6, which does include a piece of pipe which is illustrative.

A. As I have said, Plaintiff's Exhibit No. 53 is a [266] drawing made under my direction from the government specifications known as the AN fitting, and I recognize Plaintiff's Exhibit 7 as a fitting made in accordance with the same specifications.

The Court: Do I understand that this drawing that you made was made according to government specifications and not a drawing made from Exhibit 7?

The Witness: That is correct.

The Court: Then you have entitled this a Masters fitting, but really what you mean is this is a drawing that you have prepared according to government specifications?

Mr. Freeman: Which is in accordance with the Masters fitting. Those fittings that we have here, there isn't any question, and I think the defendant will agree, that the fittings that they gave us were the AN fittings made in accordance with certain specifications.

Mr. Huebner: The parts we gave you were parts made according to the AN specifications, but we didn't furnish the tube, because we never furnished tubes, and the tube that is in Exhibit 7 wasn't fur-

(Testimony of John N. Wolfram.)

nished by us. We don't know, we have no knowledge of what tube eventually goes into the assembly.

The Court: You contend that you did not furnish to the plaintiff a completed fitting?

Mr. Huebner: Yes, we so say, because as a matter of [267] convenience we brought them all together there, and I wasn't present, but Mr. Beehler, who is in court, was, gave him the parts, he put them together. We never sell those assembled like that. We sell them in boxes where there are several hundred nuts, and another box some other day several hundred sleeves. We don't put those things together.

The Court: Can you state now for your client that at no time did you ever sell a complete fitting, that you only sold the parts out of which a complete fitting could be made?

Mr. Huebner: Based on the information given me by my clients, I would state that they have at no time sold a complete fitting subsequent to the period for which infringement is claimed, rather, subsequent to the date from which infringement is asserted.

The Court: Mr. Freeman, can I ask you, do you have any evidence that you will be able to produce to show that they have sold the fitting as a whole, other than sold it as parts?

Mr. Freeman: Can I have that invoice from the Masters Company?

The Court: While they are looking that up, can I ask you something about the law?

(Testimony of John N. Wolfram.)

Mr. Freeman: Yes.

The Court: Is it your contention that if the evidence would disclose that they had made these individual parts and [268] sold them as individual parts to a third person who then assembled them, that there would be a violation?

Mr. Freeman: There certainly would, especially when you sell the three pieces. They make the entire structure of the claim, the claim calls for a fitting for use with tubes, and then they go ahead and sell all three pieces. They show them assembled in their catalogue for sale. It is just like your Honor would walk into a store and say, "I want to buy a suit comprising a coat, vest and pants," and they say the pants cost you \$20, the vest costs you \$15, and the coat costs you \$35, collectively \$70.

As far as I am concerned, that is exactly what they do with the fitting.

The Court: All right. Now let me ask you this: Supposing they manufactured and sold one million nuts that were in the public domain, is there any violation of your patent; that that is all they did, sold one million nuts?

Mr. Freeman: I would say no.

The Court: Supposing they manufactured, made and sold one million bodies that were in the public domain?

Mr. Freeman: And had not sold nuts and had not sold sleeves?

The Court: Never sold anything else.

(Testimony of John N. Wolfram.)

Mr. Freeman: They only made that, the answer again is no. [269]

The Court: So, really, the fact, then, that the only thing they did in violation of the patent, if they did it individually, would be to manufacture the sleeve with this degree of angle on the collar?

Mr. Freeman: No. When they make the three parts——

The Court: I am not talking about what they advertise.

Mr. Freeman: You are assuming a condition which, of course, is not the condition of the defendant Masters.

The Court: I am assuming that because I want to get your theory if I can. I want to understand the situation. Assuming these three parts were made and manufactured by the Masters Company. This has a tube in here, but the tube isn't supposed to be here. Now, assuming that these three parts were made and manufactured and sold by the Masters Company, individually, or let's assume this, supposing that company A made this part, that is, the body, for the record, supposing company B made the nut, and supposing company C made the sleeve?

Mr. Freeman: I don't think we could sue any one of those three companies.

The Court: They gave it to a third party who combined them together?

Mr. Freeman: Then we would sue Douglas or Lockheed who then bring about the complete infringement. We still have, and the Mercoid doctrine—I know what he is driving at, [270] the

(Testimony of John N. Wolfram.)

Mercoid decision still did not cut out contributory infringement. Then we would come back and have to charge Masters with contributory infringement, which is nothing more than aiding or abetting the act of infringement by Lockheed or Douglas, or any one of the other aircraft manufacturers that buy the three parts, put them together, and use the subject matter of the patent.

The Court: Now, if I understand you correctly, if these three parts were manufactured by three different individuals, you don't think that you could sue either one of the three?

Mr. Freeman: Except for contributory infringement.

The Court: But the fact that they were manufactured by Masters?

Mr. Freeman: Changes the picture entirely.

The Court: Then it changes the picture entirely?

Mr. Freeman: Yes.

The Court: And although these two parts, that is, the body and the nut, are in the public domain, the fact that they also manufactured something, that is, the sleeve, that wasn't in the public domain——

Mr. Freeman: And that goes along with those parts that were in the public domain, using your Honor's terms, putting those parts together to bring about what we say is in the three claims of the Parker patent, yes, that constitutes infringement. That is exactly our position. [271]

(Testimony of John N. Wolfram.)

The Court: Of course you have plenty of authorities on that line?

Mr. Freeman: We do.

The Court: Excuse me for breaking in. Now, what is the question?

(The record was read by the reporter.)

Mr. Freeman: I am going to ask Mr. Masters if the invoice I am handing him is an invoice of his company.

The Court: You can answer that yes or no. Is it or isn't it?

Mr. Huebner: We are trying to figure it out.

Mr. Freeman: I am asking, first, is it an invoice put out by the Masters Company?

Mr. Huebner: It probably is, it is on Masters stationery.

Mr. Freeman: You are not questioning that, are you?

Mr. Huebner: There is no writing on the part of Mr. Masters, so that is what we were puzzled about.

He says it is an invoice put out by Irvin W. Masters, Inc., the defendant.

Mr. Freeman: I am going to offer in evidence as Plaintiff's Exhibit 54 the Masters invoice just referred to. [272]

The Court: Well, I don't think these invoices will dispose of an issue unless they can be explained.

Mr. Freeman: That goes in next. I can either

(Testimony of John N. Wolfram.)

ask Mr. Masters for the explanation or I can ask our witness for the explanation.

The Court: Well, I don't know——

Mr. Freeman: Well, will Mr. Masters admit that the parts referred to there include a nut, body, and sleeve?

Mr. Masters: Right.

The Court: In other words, that invoice shows that they sold so many nuts, so many bodies, so many sleeves.

Mr. Freeman: Correct.

The Court: It doesn't show that they sold so many fittings.

Mr. Freeman: It shows they sold 20 fittings. If you give somebody 20 nuts, 20 sleeves, and 20 bodies, you have 20 fittings.

The Court: I don't know as I agree with you there. I don't know whether I can agree with you. That may be the law, but I don't know. If they showed that they had sold 20 fittings, I think it would be rather conclusive that they were selling fittings. That shows that they sold 20 bodies, 20 nuts, and 20 sleeves. That rather upholds their contention that they didn't sell a fitting as a whole, but they sold only the parts of a fitting. [273]

Mr. Freeman: Well, it is our position, your Honor, that when you sell 20 nuts, 20 bodies, and 20 sleeves, you bring about the infringement. That is our position.

The Court: Have you got an authority?

(Testimony of John N. Wolfram.)

Mr. Freeman: I think we will have authority on that.

The Court: If you have got a case that will hold that, I would like to read it.

Mr. Freeman: I would like to proceed along with our proof, keeping in mind that they have the burden of showing what they are trying to show, they do not infringe. I think that is up to them. Our position is that they offer them for sale when they offer them for sale in their catalog, and that is enough to keep us in court.

The Court: I have no intention of throwing you out of court. That is the last thing in my mind. I may disagree with you on your theory and on your law, but I certainly have no intention of throwing you out of court, or anything like that. But I am trying to find out what the issues are so I will have some ability to judge as to whether or not certain evidence should be allowed in or certain evidence shouldn't be allowed in. I don't want to take away from you the orderly presentation of your case. That is the last thing I want to do.

Mr. Freeman: I think we had the answer from Mr. Masters, that that invoice, Plaintiff's Exhibit 54, calls for [274] nuts, bodies, and sleeves. Then I am going to ask Mr. Masters whether or not those are for cooperating nuts, bodies, and sleeves, that is, for the same size fitting.

The Court: I just assumed that that was so.

Mr. Freeman: I thought we would button that up for the record.

(Testimony of John N. Wolfram.)

The Court: Yes, better get it in the record.

Mr. Huebner: Mr. Masters informs me that they are all of the same size, to wit, No. 4 size, and can be put together.

The Court: All right. It may be received.

(The document referred to was received in evidence and marked Plaintiff's Exhibit No. 54.)

Mr. Freeman: I assume Mr. Masters will agree that the invoice I am now handing you, which we will mark Plaintiff's Exhibit 55 for identification, is likewise an invoice of Irvin W. Masters, Inc., the defendant herein.

(The document referred to was marked Plaintiff's Exhibit No. 55 for identification.)

Mr. Huebner: Mr. Masters represents that it is **such** an invoice and to the same individual, I think.

The Court: I think, Mr. Freeman, you can get a stipulation here, at least I think that the defendants are willing to stipulate, to the effect that they not only in this particular instance, but in many instances, sold nuts, bolts——

Mr. Freeman: Nuts and bodies. [275]

The Court: Excuse me. Nuts, bodies, and sleeves in various quantities to a purchaser, that they were not sold assembled, but they were sold as individual nuts, individual bodies, and individual sleeves. I don't think there is going to be any contention to the contrary.

Mr. Huebner: We sold commercial quantities.

(Testimony of John N. Wolfram.)

That is, the defendants sold commercial quantities of individual nuts and individual sleeves and individual bodies.

The Court: To the same purchaser?

Mr. Huebner: I think so, yes.

Mr. Freeman: And on the same invoice?

Mr. Huebner: I don't know about that.

The Court: You don't need the invoices.

Mr. Huebner: I don't know about that. This thing here, I think, is a plant. That man is not a regular customer. But whether it was a plant or not, those sales were evidently consummated.

The Court: Aren't you willing to admit that these two exhibits now will form a pattern of the way you handled your sales?

Mr. Huebner: They form an exaggerated pattern, but it is true we did sell quantities of nuts and sleeves, probably to the same customer.

The Court: You can't tell me, or at least you may tell me, but I don't think I would believe you if you did, that in [276] your work during the war, when materials were scarce and everybody wanted materials, particularly such as this, that if people would order 1,000 nuts and 1,000 bodies and 1,000 sleeves, you wouldn't sell them to them just exactly like this invoice.

Mr. Huebner: It is true, no doubt the defendants would. But that was not the way the companies ordered. Actually, it was a rare instance where one company would order so many nuts and so many sleeves and so many other parts, all to go together.

(Testimony of John N. Wolfram.)

It was more or less an exception for them to do that. Actually, the way the thing worked is that Douglas would order so many nuts, Lockheed would order so many bodies, and North American would order so many other things from one company, and so many of the other parts from another company. However, that is the way it worked. We are still not denying this transaction occurred and possibly other transactions of a similar nature did occur.

The Court: I assume when you have the opportunity to substantiate your claim, you will be able to produce invoices showing that Douglas ordered 1,000 nuts and nothing else, and Lockheed ordered a thousand sleeves and nothing else?

Mr. Huebner: The burden is really on the plaintiff here.

Mr. Freeman: Then I am going to ask permission—I understand you do not have court next Monday—to send a [277] certified public accountant to make such notes as he can, limited only with respect to fittings, the subject matter here involved, no other information. We are not interested in prying into Mr. Masters' books, and that is why I suggest a public accountant. So that he can bring back the data for the court so that the court will have full information. It is our position this is a pattern, and your Honor, I think, fairly and accurately expressed it.

Mr. Huebner: That is not necessary. He can call Mr. Masters or Mr. Collins to the stand. I have offered to produce Mr. Collins on request at any time.

Mr. Freeman: Will you produce all of your

(Testimony of John N. Wolfram.)

books, and then I think we can save a tremendous——

Mr. Huebner: No.

Mr. Freeman: Then I am asking for the court to give me——

Mr. Huebner: There is no need for that.

The Court: Well, of course, it would probably be an opinion on your part, but will you produce the invoices that you say indicate the fact that these nuts and bodies and sleeves were sold in individual quantities to different individuals?

Mr. Huebner: Yes, your Honor. We will look for those. I will require the clients to look for those.

The Court: Now, may I ask you a question? Actually, [278] legally, if this would be the only instance where they sold the three parts together and the court would hold that that was the selling of the complete article, wouldn't that be an infringement? In other words, they only have to prove the one instance.

Mr. Huebner: Probably they would have established a *prima facie* case, assuming the assembly did infringe the patent. Even one act would probably be an infringement.

The Court: Let's forget everything else. The only question I want to have answered is, isn't the infringement that, whether it is one act or one thousand acts? In other words, they only have to prove the one act.

Mr. Huebner: I think for practical purposes they only have to prove one act. That might then go

(Testimony of John N. Wolfram.)

to the question of damages and whether an accounting should be ordered, but one act, technically, is an infringement, whether it is one or a thousand acts, it is technically an infringement.

The Court: Then if the court would hold against the defendants on all the issues except the issue of whether or not they sold the fitting as a whole, then those two invoices would be sufficient to sustain a finding that the defendants sold the fitting as a whole rather than as individual pieces.

Mr. Huebner: I think that as a matter of law that is correct.

The Court: I don't know why you need any more evidence, [279] Mr. Freeman.

Mr. Freeman: I want to also call your Honor's attention to the fact that we made inquiry of the defendant Masters, Inc. We asked that he produce, and I am now reading from the order or the request, which was ordered and they went along with the order, "Item No. 10. Three (3) samples of each of size No. 4 and No. 8 of a flared tube coupling consisting of a body, sleeve, and nut, now being made or procured by the defendant in accordance with Air Force-Navy design standard AND 10056, AN 818, and AN 819, with nut and body made of aluminum alloy, and the sleeve of copper silicon, aluminum bronze."

That is just the specification. We asked for three samples of size 4 and size 8 flared tube couplings. We said consisting of those three parts, and they gave us these.

(Testimony of John N. Wolfram.)

The Court: They contend they did not give them to you assembled. They gave them to you piecemeal and you assembled them. Maybe that is a question of fact that will have to be proven. In other words, you don't agree as to what actually was produced. Mr. Freeman says you produced a fitting. You say you produced the parts of a fitting.

Mr. Huebner: They are just the parts and somebody in the deposition screwed them together.

The Court: Then we will have to take some testimony as [280] to what actually happened, but I think now in the light of these two invoices, if you try to show that that is not a patent, I will refuse you the right to show it unless it comes to the question of damages. It may be important on the question of damages to determine how many times you have sold them together, rather than individually, but until that question arises, I think we will accept that as a pattern, upon your agreement that all they have to do is show one [281] instance.

Mr. Huebner: Well, one instance of an infringing act, if it is otherwise infringing, is sufficient to sustain a case, unless it is an insignificant thing. I don't think we need to make that point here.

The Court: What I am trying to do is to eliminate, if I can, the necessity of taking a great deal of testimony, and consequently cut down the time this case is going to take. If we can agree it is no

(Testimony of John N. Wolfram.)

use to bring in all those records and identify them and get them in the record.

Mr. Huebner: With your Honor's ruling that this will establish a pattern until otherwise shown, we will probably show that this is not a true pattern, and while it did exist and technically would be sufficient for the purpose of the plaintiff, that as a matter of damages it didn't exist.

The Court: I will agree with you that if the question of damages arises that the plaintiff is going to have to establish the damages, and if he can establish only one instance, he certainly wouldn't be entitled to as much damage as on a thousand of them, and he may have to have an investigation of the record. But until that question arises, Mr. Freeman, I think you can forget about it.

The clerk calls my attention to the fact that I am working too hard.

Mr. Freeman: Can we start at five minutes after two, then? [282]

The Court: No. We will recess to 2:00 o'clock.

(Whereupon, at 12:05 o'clock p.m. a recess was taken until 2:00 o'clock p.m. of the same day.) [283]

June 16, 1950—2:00 P.M.

Mr. Freeman: I would like to offer in evidence the invoice of Irvin W. Masters, Inc., invoice No. 9910, dated September 30, 1947, as Plaintiff's Exhibit 55.

The Court: It may be received.

The Clerk: No. 55.

(The document referred to was marked Plaintiff's Exhibit No. 55 in evidence.)

Mr. Freeman: I am wondering if I may have leave to substitute photostats. We do not have the photostats as yet.

Mr. Huebner: We would stipulate to that. And return the original to us?

Mr. Freeman: Oh, no, these originals are ours.

The Court: Nothing like asking.

Mr. Freeman: I want to call the court's attention to the fact that Plaintiff's Exhibit 6 and Plaintiff's Exhibit 7, two of the Masters fittings, size 4, were given to me by Mr. Masters during the taking of the depositions, and I am going to read from page 16 of the deposition with respect to those fittings. I do want to lay a proper foundation, which is here somewhat questioned, with respect to this witness applying claims of the patent to the Masters fittings.

"Q. (By Mr. Freeman): Now, Mr. Masters, we have asked [284] you to produce certain size 4 and size 8 fittings of the kind that you manufacture of these various materials. Now, have you produced such fittings?

"A. I have. I have produced fittings which I trust will serve your purpose. My reason for so responding is that we haven't given you exactly what you wanted or asked for, because

we didn't have them. In the AN 4 size aluminum fitting with aluminum nut and copper silicon sleeve, we have given you just what you asked for. In the size 8, we only have two complete assemblies to offer you, that is in the AN fitting, and we have substituted a brass nut in one assembly. On the AN fittings which you requested, we supply, with steel bodies and steel nuts and copper silicon sleeves, our face is red in that our stock contained no steel nuts. We have supplied steel bodies, steel nuts, and copper silicon sleeves, which we hope will do the trick. I am surprised our stock was so short."

JOHN N. WOLFRAM

the witness on the stand at the time of recess, having been heretofore duly sworn, resumed the stand and testified further as follows:

Direct Examination (Continued)

By Mr. Freeman:

Q. Now, Mr. Wolfram, will you take Plaintiff's Exhibit [285] 6 and Plaintiff's Exhibit 7, and take claim 1 of the Parker patent No. 2,212,183, and point out wherein you find in the physical devices elements corresponding to the various elements of claim 1 of the patent?

The Court: I wonder if we couldn't approach

(Testimony of John N. Wolfram.)

that from a different angle in the interest of saving time.

Mr. Freeman: Well, we could, your Honor——

The Court: You are asking him to point out similarities. Why can't you get the same result by asking him to point out the dissimilarities?

Mr. Freeman: Of course, if your Honor please, they have put upon us the burden of showing readability or what we call infringement of claims of the Parker patent, and we must show that the claim corresponds or reads upon the physical device that they manufacture, if we are to have a case. That is what we are starting out here to do. I think the question of dissimilarities would be improper because the question here is infringement. It must be an embodiment.

Now, I thought your Honor was going to say we would save a lot of time if we had something that was illustrative of the defendants' fitting, and we then had something definitely to tie on a phrase of the claim 2 to a corresponding illustration, so that as the case progresses your Honor will be able to follow exactly, and that is the way we started out with our drawings. But if there is any question concerning that drawing [286] then we will take the physical device, and as this witness proceeds to say, "a body member," your Honor will have to remember that there was a body member, and as he progresses then and talks about the inner surface, the inclined surface, or the parts, your Honor will just have a voluminous record to fol-

(Testimony of John N. Wolfram.)

low. We can make that record and it will take some time. That is why yesterday I asked if they might go along and agree with me that the drawing we have here represents a Masters AN fitting.

I am willing to change the heading and say it is illustrative of a Masters fitting, so that will eliminate even going so far as to say it has been made to the nth degree of accuracy. It certainly would help.

Mr. Huebner: We think it is misleading, and that is why we can't enter into the stipulation. We claim the drawing is inaccurate and [287] misleading.

The Court: Maybe we can get at this way: The witness testified that this was an AN fitting.

Mr. Freeman: Yes.

The Court: I think if the witness will testify this is an AN fitting, he can compare the claims to the AN fitting. I think it is up to the court to determine whether this AN fitting is the Masters fitting, unless they will stipulate, and evidently they don't want to stipulate, that this is the Masters fitting.

Mr. Freeman: I think they will stipulate that it is a Masters fitting.

Mr. Huebner: It was produced as an assembly of parts manufactured by Masters. The tube wasn't furnished by Masters. The tube was evidently put in by Mr. Freeman or his assistants. But Masters did supply those parts that are assembled now as fittings, Exhibits 6 and 7, and they were of Masters manufacture.

(Testimony of John N. Wolfram.)

Mr. Freeman: And they are AN parts?

Mr. Huebner: That's right.

The Court: That is not what the issue is at the present time. You have objected to the use of a diagram. You say it is not a Masters fitting. But the witness didn't testify this was a Masters fitting; he testified it was an AN fitting.

Mr. Huebner: We deny that it is true or correct even as an AN fitting. It is misleading, we [288] claim.

The Court: What I am getting at is this: I think the witness can use the diagram as an AN fitting and show us similarities, and then connect the AN fitting up with the Masters. In other words, you are taking two steps instead of one.

Mr. Huebner: I won't make any extended argument, I just want to restate my objection, and that is that there is no foundation laid to demonstrate that this drawing that he has made, identified as Exhibit 53, is a true and correct representation of the AN fitting.

The Court: I will overrule the objection as far as the AN fitting is concerned. I sustain the objection that it was a Masters fitting, upon the ground that the witness himself testified that it was the AN fitting that he made the diagram from.

Mr. Freeman: If Mr. Huebner will tell me wherein it is misleading or improperly illustrative of either an AN or Masters, I am perfectly willing. in order to expedite matters, to make such changes or modifications. What I am trying to do—we can

(Testimony of John N. Wolfram.)

do it the hard way, just as your Honor said, we can take it in two steps; but I know this, that when you have a drawing to look at that is fairly illustrative of the component parts, then when we get to determining the claims, which your Honor will have to do, you are the one that is going to have to decide this, maybe three months from now or [289] four months, or whenever it comes around, you will then know exactly what the parts refer to. They will have an opportunity to cross-examine with respect to those parts. Otherwise we are going to have to turn back to page 247 of the record and find out what was there said, and then go to page 255 of the record and find out what was there said. I am trying to make it the easy way, but I can do it the hard way, and I have done it that way. It will just take much more time.

Mr. Huebner: He is asking me, so I will answer, at least in part. But to give him the full answer would take quite a bit of time and will be part of our case. In the first place, what is obvious to everyone is that this drawing Exhibit 53 includes a flared tube. Now, that is no part of a fitting which is in issue in the case here. I don't know what kind of a tube he has shown there, or what the angles are, or anything about it, and it hasn't been established. Then, as to the parts of the so-called fitting, there are no dimensions on this drawing which would tie back to the government specifications, none whatever, and the proportions are not correct if you refer back to the AN specifications.

(Testimony of John N. Wolfram.)

Those are the reasons why I won't stipulate.

Mr. Freeman: Will you agree that it is illustrative, then?

Mr. Huebner: No, because it isn't. [290]

Mr. Freeman: O. K.

The Court: This witness is an expert, he has been testifying here for two days about drawings that he has made, he has testified that this is an AN fitting. I will allow him to use the diagram relative to the AN fitting, then it will be necessary to take another step and show that this AN fitting is a Masters fitting.

Mr. Lyon: Isn't there a stipulation that they are interchangeable?

The Court: I think there was a stipulation that they were interchangeable. But, nevertheless, I don't think you can jump at this time, under the objection of counsel. Now, I think if a foundation is laid to show the AN fitting—I think there has been a stipulation to the effect that it is interchangeable.

Mr. Freeman: I don't think there is any question but what Mr. Masters or Mr. Huebner will agree that the fitting that we have here offered in evidence as Plaintiff's Exhibit 6 is of Mr. Masters manufacture and is an AN fitting.

Mr. Huebner: That we have agreed to, and we do not renege on our stipulation that the AN fitting and the Master fitting, or parts which go to make up a fitting, which are put together to make a fitting, when manufactured to the government

(Testimony of John N. Wolfram.)

standards, are identical as to specifications. [291]

The Court: Then I will reverse myself and overrule the objection, with this understanding: that it is the opinion of the court according to the testimony that has been introduced so far, that Masters have manufactured the individual items rather than the fitting itself. There is still in dispute the question as to whether or not Masters produced the entire fitting or produced just the parts of the fitting, at the time of the deposition.

Mr. Huebner: Then, your Honor, I will be given the opportunity on cross-examination of interrogating the witness as to the sources from which he obtained the information?

The Court: Certainly.

Mr. Freeman: Then I want to renew my request for the opportunity of examining the books of the Masters Company on Monday next through a certified public accountant.

Mr. Huebner: Why does that come up again?

The Court: At the present time I will deny your request.

Mr. Freeman: Now, so that I am straight, because of the fact we are going back and forth here, do I understand the court now to hold that complete fittings were not furnished me?

The Court: No, I didn't say that. I think that matter is still in dispute as to whether a complete fitting was handed to you, or whether or not the parts were handed to you. You have read me part of the deposition. [292]

(Testimony of John N. Wolfram.)

Mr. Freeman: I am going to turn to Mr. Masters and ask him whether or not it isn't a fact that he handed me a complete fitting No. 8, connected together, and said, "Here is what you want."

Mr. Huebner: Don't you think the deposition should be referred to?

Mr. Freeman: No, I think that point is important right now. I read the deposition into the record.

The Court: The deposition is only one part of the evidence. There might be some evidence to show——

Mr. Freeman: I am turning and asking Mr. Masters as to how he handed them to me.

The Court: If he will answer it, fair enough. Or, if he doesn't want to answer, he is not on the stand and you can't require him to answer, except by stipulation.

Mr. Freeman: Do I understand that he doesn't want to answer at this time?

Mr. Huebner: If the court wants to delay while I review again with Mr. Masters the circumstances, I will talk to him. I won't stipulate without talking to him.

Mr. Freeman: I am not asking you to stipulate. I will proceed. We will do it by putting Mr. Masters on the stand at the proper time.

Q. (By Mr. Freeman): Mr. Wolfram, I am asking you now to take the physical device, Plaintiff's Exhibit 6, and compare [293] it with claim 1 of the Parker patent.

(Testimony of John N. Wolfram.)

A. Claim 1 of the Parker patent states:

“In a coupling for tubes having the ends thereof flared”——

Q. I am going to ask you whether or not the coupling that you have in your hand is for tubes having flared ends.

A. Yes, it is.

Q. Proceed.

A. ——“coupling members having threaded engagement with each other,”

I have here one coupling member which is a nut, which has an internal thread, and another coupling member, which is a body, which has an external thread, and the threads match so that the two parts can be threaded together.

Q. Referring to the chart, Plaintiff's Exhibit 50, what are the numerals that you have applied in the claim to the coupling members? [294]

A. In Exhibit 50, the numeral 3 applies to the body member, and the numeral 4 applies to the nut member.

Q. And those two parts in the Masters fittings have threaded engagement with each other?

A. That is correct. They may be threaded together. The threads match.

Q. Now, proceed with your further answer.

A. The claim goes on:

“One of said coupling members having a seat associated therewith adapted to engage the inner face of the flared end of the tube.”

I find that the body member, which is designated by numeral 3 in Exhibit 50, has a seat, which is

(Testimony of John N. Wolfram.)

designated by the numeral 5 in Exhibit 50, against which the inner face of the flared end of a tube may engage.

Q. Now, do you find that particular portion in the physical device that you have, Plaintiff's Exhibit 6?

A. I do. I find the seat to which we have just referred.

Q. Will you point that out to the court on the cutaway illustrative sample, Plaintiff's Exhibit 7?

A. That is the beveled seat against which the inner face of the flare of the tube engages.

Q. What is the number applied to Plaintiff's Exhibit 50 for that particular part? [295]

A. The body seat is numeral 5.

Q. Now proceed further with the claim.

A. The claim goes on:

“and the other coupling member,”
meaning the nut.

“having a clamping shoulder,”
I have the nut here, and if you will look inside the nut, you will see a clamping shoulder.

Q. And is that clamping shoulder illustrated in the Exhibit 7?

A. The clamping shoulder is illustrated in Exhibit 7. This clamping shoulder is also designated by the numeral 7 in Exhibit 50.

The Claim goes on to say:

“a sleeve surrounding said tube,”
I find here a sleeve.

Q. And is that sleeve adapted to go round the tube, having a flare at one end?

(Testimony of John N. Wolfram.)

A. Yes, that is correct. The sleeve has a bore through it through which a tube may be inserted.

Q. And is that general make-up illustrated in Plaintiff's Exhibit 7? A. Yes, it is.

Q. And that is, the tube is inserted in the illustrative model? [296]

A. In Exhibit 7, the tube has been inserted.

Q. And the lower end of the tube or the inside of the flare seats against the seat on the body member? A. That is correct.

Q. And that likewise is illustrated in Plaintiff's Exhibit 7? A. That is correct.

Q. Proceed. A. The claim goes on:

"and having a solid head provided with a shoulder,"

I find in Exhibit 6 that the sleeve has a solid head and a shoulder. The solid head is designated in Exhibit 50 by the numeral 9 and the shoulder by the numeral 10. The head and shoulder are also present in Plaintiff's Exhibit 7.

Q. And likewise in Plaintiff's Exhibit 6, which is the one not cut apart?

A. Yes. I have already so stated.

Q. Proceed.

A. The claim goes on:

"against which the clamping shoulder of the coupling member engages,"

This refers to the clamping shoulder of the sleeve and means that the shoulder of a nut may engage the clamping shoulder of the sleeve.

(Testimony of John N. Wolfram.)

I find in Exhibit 6 that the sleeve may be inserted in [297] the nut with the respective clamping shoulders in engagement.

I find in Exhibit 7 that the clamping shoulders are in engagement.

The clamping shoulders are given the numerals 7 and 10 in Exhibit 50; 7 being the nut shoulder and 10 being the sleeve shoulder.

The claim goes on:

“said head having the inner surface thereof provided with a coniform flare,”

I find in the sleeve of Plaintiff's Exhibit 6 that the inner surface is provided with a coniform flare. The flare is also present in Exhibit 7, and the flare is identified by the numeral 11 in Exhibit 50.

The claim goes on, referring to the coniform flare:

“so shaped that the initial contact of the head with the flared end of the tube is at the free end of the head and adjacent the outer end of the flared end of the tube,”

I find in the sleeve of Plaintiff's Exhibit No. 6 that the flared surface of the sleeve is cut back so that the initial contact would occur at the free end of the head and adjacent the outer end of a flare.

I find that the sleeve in Plaintiff's Exhibit 7 is also so shaped and is in this position, that is, the sleeve head is in contact at the free end of the head with the flare. [298]

The claim goes on to state:

“whereby during the clamping action said head

(Testimony of John N. Wolfram.)

will be expanded and moved forward along the flared end of the tube into intimate contact with the outer surface thereof through substantially the entire extent of the flared surface of the sleeve head."

I find in Plaintiff's Exhibit 7 that the sleeve head has been expanded and is in contact with the greater portion of the flare.

Q. I now hand you Plaintiff's Exhibits 37 and 38, which are AN fittings made by the Parker Appliance Company, Exhibit No. 37 being a complete fitting, and Plaintiff's Exhibit No. 38 being a cut-away section, and I am going to ask you to read claim 1 of the Parker patent upon Plaintiff's Exhibits 37 and 38.

Mr. Huebner: That is, if you can. That question rather tells the witness what he is to do. I think it is quite suggestive.

Q. (By Mr. Freeman): Well, then, I will add to my question, will you endeavor or proceed to apply claim 1 to the Parker fittings, AN size 4, following substantially the same pattern of presentation that you followed in connection with Plaintiff's Exhibits 6 and 7?

A. The claim states:

"In a coupling for tubes having the ends thereof [299] flared"

I find that this is a coupling for tubes having their ends flared.

"coupling members having threaded engagement with each other,"

(Testimony of John N. Wolfram.)

I find a nut and a body, each having threads which are capable of being inter-engaged.

The claims goes on to say:

“one of said coupling members having a seat associated therewith adapted to engage the inner face of the flared end of the tube”

I find on the body member a seat, which is adapted to engage the inner face of a flared end of a tube. The claim proceeds:

“and the other coupling member having a clamping shoulder”

I find on the two exhibits that the other coupling member, which is the nut, has a clamping shoulder.

The claim goes on to say:

“a sleeve surrounding said tube and having a solid head”

I find in both exhibits a sleeve surrounding the tube and having a solid head. [300]

The claim proceeds:

“provided with a shoulder against which the clamping shoulder of the coupling member engages,”

I find that both sleeves of the two exhibits have a clamping shoulder against which the clamping shoulder of the nut may engage.

The claim goes on:

“said head having the inner surface thereof provided with a coniform flare so shaped that the initial contact of the head with the flared end of the tube is at the free end of the head

(Testimony of John N. Wolfram.)

and adjacent the outer end of the flared end of the tube,”

I find that both exhibits have the sleeves formed with a coniform flare and so shaped that the initial contact of the flared end of the tube will be at the free end of the head and adjacent the outer end of the flared end of the tube.

The claim goes on further:

“whereby during the clamping action said head will be expanded and moved forward along the flared end of the tube into intimate contact with the outer surface thereof throughout substantially the entire extent of the flared surface on the sleeve head.” [301]

I find in Plaintiff's Exhibit No. 38, which has been assembled tightly, that the sleeve head has been expanded and moved forward along the flared end of the tube into contact with the outer surface of the flare throughout substantially the entire extent of the flared surface on the sleeve head.

Q. Now, the two fittings that you had in your hand, that is, Plaintiff's Exhibits 37 and 38, do you know those to be of Parker's manufacture?

A. Yes, they are of Parker manufacture.

Q. And they are the AN fittings?

A. That is correct.

Q. And made in accordance with AN specifications? A. That is correct.

Q. Now, I am going to hand you Plaintiff's Exhibits 5 and 8, which are in evidence, Plaintiff's

(Testimony of John N. Wolfram.)

Exhibit 5 being a Masters fitting size 8, and Plaintiff's Exhibit 8 being a similar fitting with a cut-out section for illustrative purposes, and a piece of tubing therein, and I will ask you to take claim 2 of the Parker patent and read claim 2 on Plaintiff's Exhibits 5 and 8, if you can.

A. Claim 2 of Parker patent 2,212,183 states:

“In a coupling for tubes having the ends thereof flared,”

I recognize both of the Plaintiff's Exhibits 5 and 8 as [302] couplings for tubes having the ends thereof flared.

Q. When you point out the various component parts, will you then turn to the claim chart which appears as part of Plaintiff's Exhibit 51?

Mr. Huebner: I make the same objection in so far as reference goes to Exhibit 51.

The Court: The same ruling. I don't think there was any objection to Exhibit 51.

Mr. Freeman: I don't think there is, either. That is just the claim chart. I think you were worried about 53.

The Court: He is not using 53 at all.

Mr. Huebner: All right. I will withdraw the objection.

A. Exhibit 51 illustrates the tube as No. 1 and the flared end as No. 2.

Q. (By Mr. Freeman): I am going to ask you to limit your answers to the claim portion, that is, the chart with respect to the claim part, and refer

(Testimony of John N. Wolfram.)

only to the numbers on that side, and not necessarily to the drawings.

A. The claim proceeds:

“coupling members having threaded engagement with each other,”

I find in both Exhibits 8 and 5 that there are coupling members having threaded engagement with each other.

In Exhibit 51 the coupling members are indicated by the numerals 3 and 4 in the claim as reproduced therein. [303]

The claim proceeds:

“one of said coupling members having a seat associated therewith for engaging the inner flare of the flared end of the tube”

I find that in Exhibits 5 and 8 that one of the coupling members, namely, the body, which is identified by the numeral 3 in the claim on Exhibit 51, has a seat identified by the numeral 5 on Exhibit 51, for engaging the inner flare of the flared end of the tube, the inner flare of the flared end of the tube being identified with the numeral 6 in the claim on Exhibit 51.

The claim proceeds:

“and the other coupling member”—meaning the nut—“having a clamping shoulder and an inner wall,”

I find that in both Exhibits 5 and 8 that the nut member has a clamping shoulder and an inner wall, and these parts are identified in Exhibit 51 in the claim portion as numeral 7 for the clamping

(Testimony of John N. Wolfram.)

shoulder and numeral 8 for the inner wall.

The claim proceeds:

“a sleeve surrounding said tube and having a solid head capable of radial expansion during the clamping action,”

I find in Exhibit 5 that the sleeve has a bore there through, through which a tube may be inserted. In Exhibit 8 the sleeve [304] has a bore which surrounds a tube that has been inserted. The sleeve is identified in the claim of Exhibit 51 with the numeral 9. I find, also, that the sleeve of Exhibit 5 and of Exhibit 8 has a solid head, which is capable of radial expansion during the clamping action. This head is identified by the numeral 10 in the claim of Exhibit 51.

The claim proceeds:

“said head being provided with a clamping shoulder against which the shoulder of the coupling member engages”

I find in Exhibits 5 and 8 that the sleeve head has a clamping shoulder against which the shoulder of the nut engages. This clamping shoulder of the sleeve head is identified by the numeral 11 in the claim on Exhibit 51.

The claim proceeds:

“and an inner flare surface for engaging the outer flared end of the tube,”

I find in both Exhibits 5 and 8 that the sleeve has an inner flared surface for engaging the outer flared end of a tube. This inner flare surface is

(Testimony of John N. Wolfram.)

identified by the numeral 12 in the claim of Exhibit 51.

The claim proceeds:

“said clamping shoulder being spaced a distance back of the inner flare surface,”

I find in both Exhibits 5 and 8 that the clamping shoulder of [305] the sleeve head is spaced a distance back of the inner flare surface.

The claims proceeds:

“the outer surface of said head and the said inner wall of the coupling member being so shaped relative to each other that when the sleeve head expands during the clamping action they will contact only in the region of the clamping shoulder, the remaining portion of the head being free from contact with the coupling member whereby the clamping force of the head against the tube is determined by the spring tension of the metal forming said head”

I find that in both Plaintiff's Exhibits 5 and 8 that the sleeve head has an angle on its outer surface, and that this surface is so shaped relative to the inner wall of the coupling member or nut that when the sleeve head expands during the clamping action they will contact only in the region of the clamping shoulder of the sleeve, and that the remaining portion of the head will be free from contact with the coupling member or nut, whereby the clamping force of the head against the tube is

(Testimony of John N. Wolfram.)

determined by the spring tension of the metal forming the head of the sleeve. [306]

Q. I am going to ask you whether or not, prior to your preparing yourself to testify with respect to Masters fittings No. 4 and No. 8, which you have here referred to, you used the deposition fittings or the fittings produced at the deposition, and made as accurate measurement of the parts as you possibly could?

A. Yes, I did take measurements of the fittings you mention.

Q. And that was made some time ago?

A. That is correct.

Q. I now hand you a sheet entitled "Masters Deposition Fittings, Measurement of Parts," which we will ask the clerk to mark Plaintiff's Exhibit 56——

The Clerk: No. 56.

(The document referred to was marked Plaintiff's Exhibit No. 56 for identification.)

Q. (By Mr. Freeman): ——and I am going to ask you to state just what you did in connection with the measurement.

A. I may not have made an exactly correct answer on that last question, that is, these measurements were made at my direction, not by myself personally. I did not mean that they were made by myself personally.

Q. First, may I ask, are those the same type measurements that are made under your direction

(Testimony of John N. Wolfram.)

for Parker fittings in order to match up AN specifications or standards? [307]

A. If I understand your question correctly, do you mean are these the type of measurements made in the regular course of production?

Q. Yes. Did you measure these any differently or have them measured any differently than what you use for your own production of AN fittings?

A. I am not sure that I can give an exact answer on that. I used the same type of instruments that we used. For example, we have plug gauges for gauging the holes, which I know are used in production, and we used a comparitor to measure the angles, which I know are used in the regular course of production, and we used micrometers.

Q. What I am getting at is, did you use the same technique, put it that way?

A. That is correct. I may not have measured each dimension with the exact tool or with the method which the production people do, but we used the same tools generally.

Is there a question pending?

Q. I think that answers it. You had the measurements made up, that is, taken and recorded from Masters fittings? A. That is correct.

Q. And how do these measurements that appear upon Plaintiff's Exhibit 56 for identification compare or meet up with the AN specifications? [308]

A. They are substantially within the specifications set up in the AN sheets.

Mr. Freeman: I am going to offer in evidence as Plaintiff's Exhibit 56 the photostat entitled

(Testimony of John N. Wolfram.)

“Masters Deposition Fittings, Measurement of Parts.”

The Court: It may be received.

The Clerk: No. 56.

(The document referred to was received in evidence and marked Plaintiff's Exhibit No. 56.)

Q. (By Mr. Freeman): I am going to ask you whether or not you followed the same procedure for the Collins deposition fittings.

A. Yes. I followed the very same procedure.

Mr. Freeman: Will you mark this as Plaintiff's Exhibit No. 57 for identification?

(The document referred to was marked Plaintiff's Exhibit No. 57 for identification.)

Q. (By Mr. Freeman): And likewise the measurements of the Collins fittings were made under your direction? A. That is correct.

Q. And at your request?

A. That is correct.

Q. And made prior to the time that you prepared yourself to testify in this case?

A. That is correct. [309]

Q. And, incidentally, may I ask, do you happen to have any similar data in connection with any measurements that you made of Parker AN fittings?

A. I believe I have some data, but it is not prepared in the same manner that this is and may not have the same dimensions, that is, it may not be as complete as this.

(Testimony of John N. Wolfram.)

Q. I am just informed that you have some data at the hotel. May I ask that you bring it with you on Tuesday next?

A. I will, whatever we have.

Q. I am going to ask you to take Plaintiff's Exhibits 43 and 44, which have already been referred to as Parker size 8 AN fittings, one being complete and the other being cut in section, and apply claim 2 of the Parker patent thereto, if you can.

Mr. Huebner: Your Honor, we can save a little time if he will just ask him if the answer would be the same as with respect to the application to the Masters fittings.

Mr. Freeman: I will so ask.

The Court: Fine.

The Witness: I am sure the answer would be the same.

The Court: You'd better not say "I am sure." You'd better say, "The answer will be the same."

The Witness: The answer will be the same.

Q. (By Mr. Freeman): As a matter of fact, prior to [310] your testifying today, you have checked claim 2 against the Parker No. 8 fitting, is that correct?

A. That is correct.

The Court: Well, in the light of that stipulation and the time we have saved, I think we will take a recess. We will now recess until 15 minutes after 3:00.

(Recess.) [311]

(Testimony of John N. Wolfram.)

Q. (By Mr. Freeman): I asked you with respect to Plaintiff's Exhibit 57, that is, the measurements with respect to the Collins fittings, whether or not you followed the same procedure that you follow at the Parker Appliance Company in connection with mic-ing up fittings? I am talking about taking measurements as distinguished from actual production operations.

A. That is correct, I follow the same procedure.

Q. What do you do in production for measurements, what do you use?

A. Well, in production we use a lot of go and no go gauges for routine production checking. Of course, we also use micrometers and comparitors for spot checking.

Q. In other words, when a fitting is made up, if it works in a go or no go gauge, then it is an acceptable fitting?

A. That is correct.

Q. Even though there may be a tolerance plus or minus a fraction of a thousandth of an inch?

A. That is correct, we are not interested in knowing the exact dimensions, we are just interested in knowing that it lies between two dimensions.

Q. When you measured up or had measured up the Masters fittings and Collins fittings, you then were interested in the actual measurements?

A. That is correct. [312]

Q. When you measured up a Parker fitting for actual measurement you followed the same pro-

(Testimony of John N. Wolfram.)

cedure as you followed in connection with Masters and Collins fittings, is that correct?

A. That is correct.

Mr. Freeman: I now offer in evidence Plaintiff's Exhibit 57, which is the drawing or tabulation entitled "Collins Deposition Fittings Measurement of Parts."

The Court: It may be received.

(The drawing, heretofore marked Plaintiff's Exhibit 57 for identification, was received in evidence.)

Q. (By Mr. Freeman): I am going to hand you, again, Plaintiff's Exhibits 6 and 7, which are the Masters size 4 AN fittings, and will ask you to turn to claim 3 of the patent in suit and apply the claim, if you can.

Mr. Huebner: Might it be possible, Mr. Freeman, to let him answer a double or triple-barreled question and have him give the same answer as to Collins as he did to Masters, and also the same answer to the Parker-manufactured fittings, so you don't have to ask it three times?

Mr. Freeman: I would rather have him apply the claim first specifically, if he can, to the Exhibits 6 and 7, and then I will make a short question with respect to Collins and Parker. I am afraid of double-barreled questions.

The Witness: Claim 3 of the Parker patent states: [313]

"In a coupling for tubes having the ends thereof flared"

(Testimony of John N. Wolfram.)

I recognize both of these Exhibits 6 and 7 as being couplings for tubes having their ends flared.

The claim goes on:

“coupling members having threaded engagement with each other”

Both of these exhibits include coupling members having threaded engagement with each other. [314]

Q. You might use Plaintiff's Exhibit 52, which is the claim sheet with numbers thereon and the corresponding parts illustrated in the drawing, in connection with your application of the claim.

A. In Exhibit 52 the claim reproduced therein shows a numeral 1 as being the tube and the numeral 2 as being the flared end of the tube. The numerals 3 and 4 represent the coupling members, which are threaded together.

The claim goes on:

“One of said coupling members having a seat associated therewith adapted to engage the inner face of the flared end of the tube”

I find in the Exhibits 6 and 7 that there is a coupling member, namely, the body, which is identified by the numeral 3 in the claim on Exhibit 52, and that this body has a seat identified as 5 in Exhibit 52, which seat is associated with the body, and which is adapted to engage the inner face of the flared end of a tube.

The claim goes on to state:

“and the other coupling member having a clamping shoulder”

I find in both of the Exhibits 6 and 7 that the other

(Testimony of John N. Wolfram.)

coupling member, namely, the nut, 4, as identified in the claim of Exhibit 52, has a clamping shoulder, which is identified by the numeral 7 in [315] Exhibit 52.

The claim goes on:

“a sleeve surrounding said tubing and having a solid head provided with a shoulder against which the clamping shoulder of the coupling member engages”

I find in both of the Exhibits 6 and 7 that there is a sleeve, which in Exhibit 6 may receive a tube, and which in Exhibit 7 does surround a tube. The sleeve is identified in Exhibit 52 by the numeral 8.

I also find that the sleeves of Exhibits 6 and 7 have a solid head provided with a shoulder, against which a clamping shoulder of the coupling member or nut engages.

The solid head is identified by the number 9 in Exhibit 52, the shoulder by the number 10, and the clamping shoulder of the nut by the number 7.

The claim goes on:

“said head having the inner surface thereof provided with a coniform flare so shaped that the initial contact of the head with the flared end of the tube is at the free end of the head and adjacent the outer end of the flared end of the tube”

I find in Exhibits 6 and 7 that the sleeve head has an inner surface provided with a coniform flare, and that the flare is so shaped that the initial con-

(Testimony of John N. Wolfram.)

tact of the sleeve head with the [316] flared end of the tube is at the free end of the head and adjacent the outer end of the flared end of the tube.

The inner surface, which is provided for the coniform flare, is identified in Exhibit 52 by the number 11, and I believe the other parts referred to have already been identified by number.

The claim goes on:

“the outer surface of said head and said inner wall of the coupling member being so shaped relative to each other that when the sleeve head expands during the clamping action, the portion of said head contacting with the flared end of the tube is at all times out of contact with the coupling member whereby the clamping face of the head against the tube end is determined by the spring tension of the metal forming said head.”

I find that in Plaintiff's Exhibits 6 and 7, the outer surface of the head, which is identified by the numeral 12 in Exhibit 52, and the inner wall 13 of the nut, are so shaped relative to each other that when the sleeve head expands during the clamping action, the portion of the sleeve head which contacts the flared end of the tube is at all times out of contact with the nut or coupling member 4, whereby the clamping force of the sleeve head against the tube end is determined by the spring tension of metal forming the head. [317]

Q. I am going to ask you to take a Collins size

(Testimony of John N. Wolfram.)

4 fitting, which is in evidence as Plaintiff's Exhibit 10, and apply claim 2 of the patent in suit thereto, if you can.

Mr. Huebner: Can't he shorten that, your Honor, by saying, if it is to be his answer, that he would apply it in the same way that he applied the claim 2 against the Masters parts assembled? Or do we have to listen to it all through again?

The Court: It is perfectly all right with me, unless Mr. Freeman is trying to make a record and he wants it in the record.

Mr. Freeman: I think we should have, your Honor, at least one claim applied to a Collins fitting of the various sizes that are here, and then I think we can agree with defendant that he would answer with respect to other sizes, just as he did in connection with Masters.

Mr. Huebner: I only made the suggestion to try to speed up the proceedings.

Mr. Freeman: I think we will just go along with the one claim on the one fitting, and then we will get the catch-all.

The Court: All right.

A. Claim 2 of the Parker patent states:

"In a coupling for tubes having the ends thereof flared," [318]

I find that this is a coupling for tubes having flared ends.

"coupling members having threaded engagement with each other,"

The Exhibit 10 has coupling members in engage-

(Testimony of John N. Wolfram.)

ment with each other, namely, a nut 4, as indicated in the claim on Exhibit 51, and a body 3.

The claim goes on:

“one of said coupling members having a seat associated therewith for engaging the inner flare of the flared end of the tube”

I find that the body member of Exhibit 10 has a seat identified as 5 in Exhibit 51 for engaging the inner flare 6 of the flared end of the tube.

The claim goes on:

“and the other coupling member having a clamping shoulder and an inner wall,”

I find that the nut member of Exhibit 10 has a clamping shoulder 7 and an inner wall 8 as identified on Exhibit 51.

The claim goes on:

“a sleeve surrounding said tube and having a solid head capable of radial expansion during the clamping action,”

I find such a sleeve in Plaintiff's Exhibit 10. The sleeve is identified by the number 9 in Exhibit 51 and the solid head as No. 10. [319]

The claim goes on:

“said head being provided with a clamping shoulder against which the shoulder of the coupling member engages and an inner flare surface for engaging the outer flared end of the tube,”

I find such a head identified as 10 in Exhibit 51 in Exhibit 10, and that it is provided with a clamping

(Testimony of John N. Wolfram.)

shoulder 11 against which the shoulder 7 of the nut engages.

The claim goes on:

“and an inner flare surface for engaging the outer flared end of the tube,”

I find such an inner flare surface in the Exhibit 10, and it is marked as 12 in Exhibit 51.

The claim goes on:

“said clamping shoulder being spaced a distance back of the inner flare surface”

I find that the clamping shoulder in Exhibit 10 is spaced a distance back of the inner flare surface.

The claim goes on:

“the outer surface of said head and the said inner wall of the coupling member being so shaped relative to each other that when the sleeve head expands during the clamping action they will contact only in the region of the [320] clamping shoulder, the remaining portion of the head being free from contact with the coupling member whereby the clamping force of the head against the tube is determined by the spring tension of the metal forming said head.”

I find that the outer surface of the sleeve head, identified as 13 in Exhibit 51, and the inner wall 8 of the coupling member, or nut 4, are so shaped relative to each other that when the sleeve head expands during clamping action they will contact

(Testimony of John N. Wolfram.)

only in the region of the clamping shoulder, and that the remaining portion of the head is free from contact with the coupling members or nut whereby the clamping force of the head against the tube is determined by the spring tension of the metal forming said head. [321]

Q. If I were to ask you the same question in connection with Collins fitting, size 8, Plaintiff's Exhibit 11, and a comparison thereof with claim 2 of the Parker patent, would your answer be the same? A. May I have the cut-away?

Q. We don't have a cut-away of that one.

A. We did.

Mr. Huebner: Did the witness answer the question?

Mr. Freeman: No. He is looking for a cut-away of the same one.

The Court: What was the number of that?

The Witness: The exhibit which I have, that is, Exhibit 11, is not cut away and I am not sure that I am prepared to answer the question from the loosely assembled parts.

Mr. Freeman: Can we agree that at least it is an AN fitting?

Mr. Huebner: I think it is. I will check it.

Mr. Freeman: This witness is very, very careful, as you can well notice.

Mr. Huebner: Let's see what you have.

Mr. Freeman: It is a Collins AN fitting, size 8, of steel.

(Testimony of John N. Wolfram.)

Mr. Huebner: This is one that was produced, I mean the parts were produced by Mr. Collins at the deposition, [322] weren't they?

Mr. Freeman: Yes.

Mr. Huebner: We will agree this is an AN fitting made according to AN standards. Is that what you want?

Mr. Freeman: That's right.

Mr. Huebner: And we had better identify the exhibit number.

Mr. Freeman: Referring now to Plaintiff's Exhibit 11.

Mr. Huebner: Plaintiff's Exhibit 11.

Q. (By Mr. Freeman): I am going to ask you whether or not your answer with respect to a Parker No. 8 fitting made of steel, Plaintiff's Exhibit 6, would likewise read upon claim 2 in the same manner that you apply claim 2 to the Collins fitting, plaintiff's Exhibit 10. A. Yes.

Q. And the Parker steel fitting, Plaintiff's Exhibit 46, is likewise an AN fitting?

A. That is correct.

Q. I am going to ask you whether or not the Parker No. 24 fitting, Plaintiff's Exhibits 32 and 33, likewise read upon claim 2.

A. Claim 2 will read upon these fittings.

Q. When you say "these fittings," you are referring to Plaintiff's Exhibits 32 and 33?

A. That is correct.

Q. And they are likewise AN fittings? [323]

(Testimony of John N. Wolfram.)

A. That is correct.

Q. Now, will you turn to Plaintiff's Exhibit 53 for identification and tell me whether or not the nut portion shown in the drawing is fairly illustrative of the nut of the Masters fitting, Plaintiff's Exhibit 6, that is, a section cut through the nut or a central sectional view? A. It is.

Q. And will you tell me whether or not the drawing of Plaintiff's Exhibit 53 for identification is a fairly accurate representation of a central section of the body member corresponding to Plaintiff's Exhibit 6? A. It is.

Q. And have you examined the sleeve of Plaintiff's Exhibit 6 and, if so, will you tell me whether or not Plaintiff's Exhibit 53 for identification is fairly accurate as illustrating the sleeve?

A. I have examined it, and it is.

Mr. Freeman: I am now going to renew my offer of Plaintiff's Exhibit 53 for identification as illustrative of a Masters fitting, particularly the fitting, Plaintiff's Exhibit 6.

Mr. Huebner: It is still not competent, your Honor; no foundation laid with respect to the tube that is in there.

The Court: Overruled. It may be [324] received.

(The drawing referred to was received in evidence and marked Plaintiff's Exhibit No. 53.)

The Court: Might I ask counsel a question?

(Testimony of John N. Wolfram.)

Mr. Freeman: Yes, sir.

The Court: Assuming that these were in the same box or bin, or whatever it is, that you keep these fittings in, that is, the whole fitting, and the purchasing agent of an airplane factory would pick up the fitting, could he tell the difference between a Masters fitting and the Parker fitting, if they were not marked in any way?

Mr. Freeman: No, sir.

Mr. Huebner: I don't think he could. That is the Parker Manufacturing fitting? You are forgetting the patent now?

Mr. Freeman: That is what the court asked about.

The Court: I am talking about a fitting made by Parker.

Mr. Huebner: If you take an AN fitting made by Parker and an AN fitting made by Collins or Masters, I don't believe anybody could tell the difference, except by reference to markings on them.

The Court: And if there were no markings at all, no marking to show who was the manufacturer—

Mr. Huebner: I don't believe the airplane company or the customer would know who made them.

The Court: Could an engineer discover it? Could he go [325] back and take it apart and determine a difference? That is, assuming that the workmanship was the same?

Mr. Huebner: I don't think they could tell the difference. The requirements are that they put markings on them, but assuming your Honor's

(Testimony of John N. Wolfram.)

premise that there were no markings, I don't think even an engineer could tell.

Mr. Freeman: I don't think any of the manufacturers, as capable as they are, unless by one chance out of a thousand when they might be able to guess which was theirs, could tell. As far as the products are concerned, they are what we call identical twins.

The Court: I know I couldn't tell, but I was wondering the experts could tell. [326]

Mr. Huebner: I don't think so, and Mr. Freeman seems to feel that way, too.

Mr. Freeman: I will say this: I have looked at just literally hundreds of them that we have gotten from Collins, Masters, and Parker, and the only way I can tell them apart is to look on the unit itself. But when I have my glasses off they all look alike.

Mr. Huebner: That same thing is probably true from all the other independent manufacturers who have copied the same thing.

Mr. Freeman: Mark this, please.

(The document referred to was marked Plaintiff's Exhibit 58, for identification.)

Q. (By Mr. Freeman): I hand you a drawing or chart which has been marked Plaintiff's Exhibit 58, for identification, and will ask you to look at the drawing and tell me whether or not the section of the nut there shown corresponds to and fairly illustrates the nut of Plaintiff's Exhibit 5.

A. It does.

(Testimony of John N. Wolfram.)

Q. What do you have to say about the portion of the drawing which is shown in section, that is, central section, corresponding to the body of the physical unit that you have in your hand?

A. That the drawing is illustrative of the body.

Q. And is it likewise illustrative of the [327] sleeve?

A. It is.

Q. And in your opinion does the drawing forming a part of Plaintiff's Exhibit 58 accurately portray and represent an AN fitting?

A. Yes, it does.

Q. And does it accurately and fairly represent the AN fitting that you have in your hand, Plaintiff's Exhibit 5?

A. It does, as an illustration.

Mr. Freeman: I am going to offer Plaintiff's Exhibit 58 as illustrative of Plaintiff's Exhibit 5.

The Court: It may be received.

(The document heretofore marked Plaintiff's Exhibit 58, for identification, was received in evidence.)

Mr. Freeman: Mr. Huebner, I was going to put in two similar drawings, or at least one similar drawing, illustrating claim 2 and the Collins single angle sleeve. Might it go in subject to the same objection that you made in connection with the Masters?

Mr. Huebner: Do you mean you haven't got it here?

(Testimony of John N. Wolfram.)

Mr. Freeman: I have got it here. I will show you what I have.

I am going to ask the clerk to mark the drawing entitled "Collins Fitting with Single Angle Sleeve" as Plaintiff's [328] Exhibit 59.

(The drawing referred to was marked Plaintiff's Exhibit 59, for identification.)

Mr. Freeman: And I am going to call the court's attention to the fact that the body member in the drawing is illustrated as a unit that we call a straight, whereas the physical device that we have the body member is a "T."

Mr. Huebner: We make no point of that difference, your Honor.

Mr. Freeman: In other words, I might say this is the type of device where they use two fittings to one body member, maybe two tube connections to one body member.

Q. (By Mr. Freeman): I am going to ask you to state, aside from the body member, does the drawing, Plaintiff's Exhibit 59, for identification, fairly and accurately represent the sleeve member, the angle on the body member, and a nut member?

A. This drawing is illustrative of those points.

Mr. Freeman: I am going to offer in evidence as Plaintiff's Exhibit 59 the drawing entitled "Collins Fitting With Single Angle Sleeve."

The Court: It may be received.

(The drawing, heretofore marked Plaintiff's Exhibit 59, for identification, was received in evidence.) [329]

(Testimony of John N. Wolfram.)

The Court: I notice, Mr. Freeman, it is now 4:00 o'clock. Might I inquire how much additional time do you think it is going to take for you to present your case?

Mr. Freeman: I think we are going to wind up with this witness in not over—and I am scared to death, in view of a little cartoon that my friend Mr. Huebner gave me—to say it was only going to take five minutes, but it is actually going to take very little with this witness as far as we are concerned. Now, I can't speak for Mr. Huebner with respect to cross-examination and possible redirect.

The Court: Is this the only witness you are going to use?

Mr. Freeman: I have one other witness but it will be a relatively short witness. We certainly won't get into all these details.

Mr. Huebner: What would you say, another half a day or a day altogether?

Mr. Freeman: Half a day.

Mr. Huebner: Before I get to cross-examine?

Mr. Freeman: You are going to be able to cross-examine this individual, I would say, within 10 or 15 minutes after we start, so come prepared.

The Court: I just want to impress upon you again that if we don't complete the case next week it may go over to September or October. [330]

Mr. Freeman: Couldn't we possibly sneak a day in there after your July 5th, or when you come back from your Judges Conference?

The Court: I don't know. I have got other

(Testimony of John N. Wolfram.)

cases scheduled. I would like to get this out of the way this next week, if I can.

Mr. Freeman: We are going to try very, very hard.

The Court: It seems to me if any matter comes up that can be reached by stipulation, that counsel ought to be willing to stipulate to it.

Mr. Huebner: We surely will try. I have been stipulating to whatever I felt was proper to stipulate to.

The Court: I am not saying anything to the contrary.

Mr. Huebner: And I will continue to do that.

Mr. Freeman: You will find us the same way.

Mr. Huebner: The clerk might hand the court this cartoon, as long as counsel has seen it.

The Court: Well, I find this is very typical on many, many occasions, counsel will say, "I have just one more question," and then they go for half, three-quarters of an hour on one question. It is very typical.

We will recess this case now until 10:00 o'clock next Tuesday morning.

(Whereupon, at 4:05 o'clock p.m., Friday, June 16, 1950, an adjournment was taken to 10:00 o'clock a.m., Tuesday, June 20, [332] 1950.)

(Testimony of John N. Wolfram.)

Tuesday, June 20, 1950—10:00 A.M.

The Clerk: Parker Appliance v. Masters and Collins.

Mr. Freeman: Mr. Wolfram. You may cross-examine.

JOHN N. WOLFRAM

called as a witness by and on behalf of the plaintiff, having been previously sworn, was examined and testified further as follows:

Cross-Examination

By Mr. Huebner:

Q. Mr. Wolfram, I gather from your testimony that you have devoted a great deal of time to the preparation of this case, is that correct?

A. I have spent quite a bit of time on the case, yes.

Q. A matter of a good many weeks, I presume?

A. Well, it has been scattered throughout the period in which we have been waiting to come to trial.

Q. Anyway, you are thoroughly familiar with the Parker patent in suit that is the basis of the complaint, No. 2,212,183?

A. I am quite familiar with it.

Q. Did you have any difficulty in understanding what is disclosed and claimed in that patent?

A. I don't believe so. [333]

Q. Do you feel that it is complete in all respects

(Testimony of John N. Wolfram.)

so that one skilled in the art may understand what is taught by the patent? A. I think so.

Q. Will you please refer to page 2 of the patent, column 1, down near the bottom of the column beginning at line 60? I direct your attention to the paragraph there reading as follows:

“While I have illustrated the invention embodied in a tube coupling wherein the seat against which the flared end of the tube is clamped is in the form of a male member and the nut co-operating with the inner sleeve is in the form of a female member, it is obvious that these parts may be reversed and the clamping seat formed of a female member while the sleeve is forced against the tube end by a male member.”

Now, I will come later to the rest of the paragraph, but I wish you would please quickly sketch on a piece of blank paper your interpretation of that sentence which I just read. Here is a piece that may be convenient; it is ruled and has little squares in it, if you would like to use that.

A. All right, thank you.

(Witness sketching on paper.) [334]

Q. We won't call you to task for rough work, just so we get the illustration free-hand.

A. I appreciate that.

Q. One side is enough. You can make a section showing just half of it. A. Thank you.

The Court: While he is working on that, can I

(Testimony of John N. Wolfram.)

ask you a question? Supposing that doesn't mean anything, supposing it is unintelligible, how would it affect the patent? Supposing he has claimed something that can't be done, does that affect the patent in any way?

Mr. Huebner: It may; and there are other reasons, your Honor. I will be glad to state to the court and counsel.

The Court: I assume you have something in mind.

Mr. Huebner: Yes, I have.

The Court: And I was trying to find out. Assuming that it could not be done, that is, that you could not reverse these two pieces and make a good patent? Of course, if you reverse these two things, evidently the thing that is important is the collar and shape of the collar. [335]

Mr. Huebner: It may be. I don't know what he is coming up with. But there are two theories on which I think the question is proper. I would be glad to state to your Honor in the presence of counsel the reasons for this and three or four other questions along this line.

The Court: I am asking you as a matter of law. Supposing we have a patent, a patent application or a patent as granted, and they have a paragraph or a sentence in it and nobody knows what it means. Does that invalidate the patent?

Mr. Huebner: It may not. It may or it may not. In this case, I am not sure whether it would or would not. I am not predicating the whole case on

(Testimony of John N. Wolfram.)

the possibility that it would invalidate the whole patent.

The Court: Well, I don't want you to prematurely disclose what you are trying to get at, but I was just asking for information while he was busy.

Mr. Huebner: Shall I go into the explanation now?

The Court: No. Go ahead with your examination.

Q. (By Mr. Huebner): Have you finished that sketch?

A. Yes, I have completed a rough sketch.

Q. Would you put your initials on it, please?

A. Yes. (Witness complying.)

Mr. Huebner: Will you mark this sketch for identification, the sketch prepared by the witness?

The Clerk: Defendants' Exhibit A. [336]

(The sketch referred to was marked Defendants' Exhibit A for identification.)

Q. (By Mr. Huebner): Now, directing your attention to Defendants' Exhibit A, do I interpret this sketch that you have made to be a two-piece or three-piece fitting?

A. It is a three-piece fitting.

Q. And that is supposed to be what Mr. Parker meant in the paragraph that I quoted to you?

A. Well, that is what I interpret the paragraph to mean.

Q. Now, take the next sentence, if you please, in the patent, page 2, column 1, which reads as follows:

(Testimony of John N. Wolfram.)

“It is also obvious that minor changes in the details of construction and the shaping of the parts may be made without departing from the spirit of the invention as set forth in the appended claims.”

I would like you, and if the court prefers we don't take up his time while you are doing it, I am willing it be done at the next recess, but I would like you to take that sentence and in a free-hand sketch on the same kind of paper, which we will provide, illustrate as many **different forms** as occur to you as exemplifying the variations or the so-called minor changes in construction and shaping of parts as you feel come under this patent. I assume you have several in mind.

Mr. Freeman: I object to that question because it is [337] the duty of the court to determine what comes within or without the patent. We are talking here, your Honor, about a physical device in being, the patent claims as they are, a device corresponding to the drawings, to the description, and to the claims of the patent. That is what we charge. Of course, if he wants to delve into the realm of speculation as to what this patent may mean as to minor changes or what the attorney or Parker had in mind, I have no objection. I am satisfied this witness can take care of himself. But it is strictly speculative. I don't think we should take the court's time——

The Court: I don't know whether it is speculative or not, because there is a very important question in my mind. We have here a body that it

(Testimony of John N. Wolfram.)

has been admitted is in the public domain. We have a nut that is admitted to be in the public domain. We have a tube that is admitted to be in the public domain. We have a sleeve that is admitted to be in the public domain. The only thing you have done so far as I have been able to find out is to change the angle on the collar of the sleeve. You have changed the angle on the collar of the sleeve and you brought about a certain result. It is obvious that minor changes in the details of the construction and shape of the parts may be made without departing from the claims, and the only thing I am interested in is what you are going to do with the sleeve. [338]

Mr. Freeman: Well, it says, "without departing from the spirit of the invention as set forth in the appended claims." It is the claims that measure the invention.

The Court: If it wasn't for this sleeve, if we could take this sleeve out of the coupling entirely, that would be different, but on the face of the evidence, I would have to hold all the rest of these things are in the public domain from the testimony that has been introduced and the stipulations that have been entered into.

Mr. Freeman: As far as I am concerned, I will withdraw my objection, because this witness can take care of himself, and I will be very happy to have the court have full information. I am not trying to keep any information or any facts from the court.

The Court: I am not particularly interested as

(Testimony of John N. Wolfram.)

far as any changes you want to make on the body or the nut or the tube are concerned. I am interested in what changes you think can be made in the collar of the sleeve, and still be within the patent. The only thing you have done, as far as I know, is you have taken the sleeve and had a collar that was the same all the way around, and you changed the angle. The angle is such that nobody can tell it from looking at it with the naked eye. You have got to have an instrument to determine what the angle is. Now, you brought about certain changes by changing the angle of the collar of the sleeve. If [339] you can change the angle of the collar of the sleeve anyway you want to and still be within the patent, I would like to know it.

Can I ask counsel this question? Up until this particular patent, was there any attempt made to change the angle on the collar of the sleeve? [340]

Mr. Freeman: Are you directing that to plaintiff's counsel?

The Court: Both of you. I will ask you first.

Mr. Freeman: As far as we have been able to find from a very careful study of the prior art, the patents that they themselves here have dug up and put into this record, we fail to find any piece of prior art, whether it is patent, publication, or otherwise, wherein you have provided the clearance of the kind set forth in the Parker claim brought about by the angle on the sleeve which gives you expansion in one zone, gives you rigidity in another zone, and the detailed functions or structure set

(Testimony of John N. Wolfram.)

forth in the claims. The answer is we haven't been able to find it.

The Court: Now, let me ask opposing counsel.

Mr. Huebner: In Mr. Parker's earlier patent, 1,977,240, he illustrates in the drawing an angle of a little different character. That is the only one I recall at the moment. This earlier patent that I refer to would be prior art to the patent in suit. But now my question, your Honor, is a little bit broader than I feel you define. It isn't necessarily the angle on the sleeve itself which contributes the feature that they are talking about. It says that the parts are so shaped. Now, there may be an angle on the sleeve, or there might be an angle on the nut. In other words, I want this man to show what variations relate to this [341] so-called shaping of the parts whereby the result he talks about is achieved. Now, it may be that when he interprets it he will show us three or four different relationships whereby this clearance can be obtained, and that is what I feel he should do.

The Court: Well, as far as I can remember any testimony in this case, there is no claim made for any invention relative to the body or the nut. The only thing here is the shape of the sleeve.

Mr. Huebner: Well, there is more than that. As far as the physical exhibits go, I guess there is only one angle on a part that we are talking about, and that is the angle on the outside of the sleeve head. But the patent says that the parts may be so shaped that you get this clearance. Now, it may be that he

(Testimony of John N. Wolfram.)

will interpret that that angle has to be restricted solely to the sleeve. On the other hand, it may be that the angle can be on the nut, as far as the patent interpretation goes, and that may vitally affect the validity of the patent.

The Court: I have no objection to his answering the question and making drawings, but I was asking this for my own information in trying to clarify the issues here, because the only thing that I have been able to find and I may be mistaken, the only thing I have been able to find so far that is in any way new at all is the angle upon the collar of [342] the sleeve.

Mr. Huebner: I think that is the only thing that might possibly be construed so far as being different.

The Court: It may be that by cross-examination you will bring out that there is an angle in the nut that I don't know anything about, or there is an angle in the body. You might do that for me.

Mr. Huebner: That is what I would like to know, what the witness' interpretation of the patent is. He may decide that there could be an angle in the nut, instead of an angle on the sleeve, and get the same result, and there are half a dozen different ways that we can probably do this thing.

The Court: Supposing we do this, supposing during the recess time that he use his recess time to draw these diagrams.

Mr. Huebner: All right.

The Court: And if we have to take a little more

(Testimony of John N. Wolfram.)

time we will take a little more time on recess.

Mr. Huebner: All right.

Q. (By Mr. Huebner): While we are on the patent, just some general questions, then. That is Parker patent 2,212,183. Do you find in the patent any mention of the kind of metal that is recommended for making these fittings? I don't want to hold this proceeding up, but I haven't seen it, and I am just asking you if you have observed it. [343]

The Court: I thought it was stipulated whatever the fittings were made of didn't make any difference at all; whether they were made of aluminum, iron, or steel or gold, it didn't make any difference. They are not claiming that they have a right to manufacture fittings made only of aluminum or of an alloy.

Mr. Huebner: Or of lead, I presume?

The Court: Or of lead. I don't think there is any claim like that. Is there?

Mr. Freeman: Your Honor's statement of the stipulation is correct. Or, at least agreement of counsel.

Q. (By Mr. Huebner): Can we get this point into the record without reading the patent all over again, there is no mention of the kind of metal in the Parker patent, is there?

A. I don't recall that there is one, just offhand.

Q. All right. Are there any dimensions in inches or fraction of an inch of any of the parts recited or stated in the Parker patent?

A. I believe the only specific measurements that I recall are in regard to flare angles.

(Testimony of John N. Wolfram.)

Q. I will get to angles next; I am talking now about dimensions in inches or fractions of an inch, that is, the measurement of the parts; there is no reference to it, is there? [344]

A. There is no written reference, but of course the relationship of the parts is well disclosed in the drawing.

Q. That is, you mean to say the relative proportion of the parts is illustrated in the drawing, that's all?

The Court: My understanding of this fitting is that it works whether you have a fitting a quarter of an inch in diameter or six inches in diameter. What difference does it make?

Mr. Huebner: I just want him to confirm it. It is not a trick question. I want to lay a foundation here very quickly.

Q. (By Mr. Huebner): There aren't any measurements in the patent except measurements of angle, are there?

A. There aren't any specific dimensions mentioned in the specification. But, as I said, the relationship of the parts is disclosed in the figure, in the drawing.

Q. All right. Is there any recommended torque specified in the patent for the tightening up of the nuts?

A. I don't believe there is any specific figure given.

Q. Is there any reference to torque anywhere?

A. Not to a figure. Of course, the patent does

(Testimony of John N. Wolfram.)

mention that the fitting is to be drawn up or, as stated, it is clamp-set.

Q. Well, actually in practice if you embodied this disclosure in a physical structure, the recommended torque [345] would depend on a number of factors, wouldn't it? A. That's possible.

Q. If you had a small fitting your torque would normally be less than if you had a large size fitting, wouldn't it?

A. Generally, that might be the case.

Q. And if you had steel your torque would be greater than if you used aluminum in the threaded parts, wouldn't it?

A. I think that your tube would have something to do with that, too.

Q. Well, take a No. 8 fitting, and assume in one the parts are made of aluminum, and in the other the parts are made of steel; in which case would your torque be greater? That is, the recommended torque for tightening properly?

A. I think if you would use the same tubing, in either the steel fitting or the aluminum fitting you probably would use about the same torque.

Q. All right. If you use aluminum tubing in one and steel tubing in the other, what about the torque?

A. With everything else being equal, I would generally say that the steel should take a little bit more torque. [346]

Q. Now, on page 104 of the transcript, you testified the Parker Appliance Company was started

(Testimony of John N. Wolfram.)

by Mr. Parker in 1924. He was not the first one, to your knowledge, to manufacture tube fittings, was he?

Mr. Freeman: What page was that?

Mr. Huebner: 104.

Mr. Freeman: Well, that happens to be the testimony of Mr. Wagner.

Mr. Huebner: Yes. I did not mean to mislead him. I am sorry about that.

Q. It was testified on page 104 that the Parker Appliance Company was started by Arthur L. Parker in 1924. Were you with the company at that time? A. No.

Q. You have been with the company, I think you said, 18 years. A. Nearly 18 years.

Q. What is your age? A. 36.

Q. Then you were old enough in 1924 to have some knowledge, were you, of flared tube fittings?

The Court: I think it was stipulated flared tube fittings were manufactured and had been manufactured for years. The manufacture of the flared tube fittings is nothing new, is it? Wasn't that stipulated to? [347]

Mr. Freeman: There is no question about it.

Mr. Huebner: All right. The point I want to bring out, your Honor, is, and perhaps that is stipulated to, that flared tube fittings were used in automobiles and machinery long before Mr. Parker presumed to make any contribution to them.

The Court: Maybe counsel will stipulate to that. That is my understanding.

(Testimony of John N. Wolfram.)

Mr. Freeman: I think it is immaterial how far back they were made. I did say in my opening statement that prior to the Parker patent in suit, the Parker Company itself made fittings. There are some of those fittings here in evidence. I don't think it makes much difference whether it is 10 years back or 40 years back.

Mr. Huebner: He has been making the point that Mr. Parker was a pioneer and I want to show he was not a pioneer.

The Court: Can we do this? Can you enter into a stipulation that this business of having flared fittings is nothing new, that it has been used for years, and it is used in all kinds of equipment?

Mr. Huebner: I think that stipulation is correct as to the fact.

The Court: I did not understand anybody said Mr. Parker was the inventor of the flared tube fitting.

Mr. Huebner: But they said he was a pioneer in this business. [348]

Mr. Freeman: Then I am going to object to the question from this witness on the ground it is not proper cross-examination.

The Court: I will sustain the objection. I don't think it is material. As far as I am concerned, it is not. It may be material for you in establishing your record, and I am very conscious of the fact that I don't consider this court as the court of final resort in this case at all, that you want to make a

(Testimony of John N. Wolfram.)

record and so I will lean over backwards to allow you to make a record. But I think it has already been agreed this is nothing new. Fittings have been made for years. I also remember you told us at the beginning of the case you were going to introduce a book, I think, published in 1902, depicting a flared fitting.

Mr. Huebner: Yes, and a patent granted in 1865.

The Court: So even though this witness can't testify from his own knowledge, at least it is the understanding of the court this is not anything new.

Q. (By Mr. Huebner): Do you know when the AN standard was adopted?

A. You mean the AN standard for flared fittings as presently constituted?

Q. The AN standard as originally constituted.

A. What is now referred to as the AN standard flared fitting was officially approved about in 1941. [349]

Q. And there have been changes made since that time?

A. There have been minor changes listed on the standard sheets which set forth these fittings.

Q. Do any of those changes go to the degree of angle authorized to be incorporated in the sleeve head?

A. Do you mean on the outside of the sleeve head?

Q. Either outside or inside. I want you to recite the facts.

(Testimony of John N. Wolfram.)

A. As far as I know, I don't recall any changes in the angles of the sleeve head. There may have been some changes that I don't know about, but my impression is that there have not been any.

Q. Did you personally have something to do with the activities in connection with the development of the AN standard in 1941?

A. I don't know how broadly you mean to ask your question. I did some work on the problem at the Parker Appliance Company, but that was not of an official character or relation with the Army and Navy.

Q. Did you have anything to do with the preparation of the patent application of the Parker patent in suit?

A. Yes, I did in the latter part of the prosecution.

Q. What were your activities in that connection?

A. I transmitted some of the information and comments [350] from Mr. Parker to the patent attorney.

Q. Do you recall what the facts were that you transmitted?

A. Well, this is one of the very first patent applications which I had anything to do with. Prior to that time, I had never worked upon patents. I believe that when I got into this case, claim 1 had been allowed and that we were—or I should say that the attorney was working on claims 2 and 3.

(Testimony of John N. Wolfram.)

Q. Well, then, your work would relate, you think, only to claims 2 and 3?

A. Yes, I think that is the case. It has been quite a long time ago.

Q. Now, during the war, I believe it was stated that you had five or six engineers working in the research department on flared tube fittings. Is that right?

A. That is correct.

Q. Then after the war, you tapered off so it was a very small department, if any, is that right?

A. Yes. As I indicated, at the end of the war, we tapered off, that was in August of 1945, and then about a year later or so, I myself got out of that phase of the engineering.

Q. Now, the patent in suit was granted August 20, 1940. Therefore, I presume that its subject matter was known [351] to your research department in 1941 when the AN standard was being developed.

A. We didn't have a research department of the nature which I have mentioned in 1941 or 1940.

Q. Do you have any knowledge as to whether this Parker patent was made known to the committee, or whoever it was working on the AN standard program?

A. No, I don't know whether this patent was specifically called to their attention.

Q. Do you have any knowledge as to where the dimensions, proportions, and angles for the AN standard fitting came from?

A. I have just a general idea. As I said, I did

(Testimony of John N. Wolfram.)

not work directly with the Army and Navy on that project, but from some of the contacts that some of our people had, I picked up bits of information here and there.

Q. What were those bits of information?

A. Well, it is my understanding that——

Mr. Freeman: I object to that as strictly calling for hearsay. There isn't any question but what this patent issued on the date that appears on the patent. It was then general public information and anybody that wanted it could have gotten a copy of it. There isn't any question about it. He is calling for events that took place in 1941, which are subsequent to the issue date of the patent. [352]

Mr. Huebner: How can he object that it is hearsay? I am cross-examining.

Mr. Freeman: It still can be hearsay.

The Court: It is true you have a great deal of latitude in cross-examination, but he has testified he doesn't know whether the people who adopted AN specifications looked at this patent. That is my recollection of his testimony.

Isn't that what you said?

The Witness: That is correct, your Honor.

Mr. Huebner: But he had some sources of information, your Honor, and I wonder what they were.

Mr. Freeman: That is strictly hearsay.

The Court: He says he doesn't know and, when he says he doesn't know, I don't know that you

(Testimony of John N. Wolfram.)

can ask him what somebody told him. I will sustain the objection. I am assuming now that the people who drew up the specifications of the AN fitting knew about this patent and probably saw the patent. I don't know.

Mr. Huebner: Your Honor, I don't know what the basis for that assumption may be. That is why I am asking this question of the witness.

The Court: The reason I say I assume that is because my understanding is the so-called AN specifications follow this fitting here. [353]

Mr. Huebner: You mean follow the patent or follow the fitting? Your Honor has a physical exhibit in your hand. The AN specifications were employed in making the Parker fitting, but we still haven't come to the proof where we will show that the AN fitting is not according to the Parker patent.

The Court: Well, then, the committee or the group that decided upon the specifications of the fitting, developed the specifications for a physical fitting, and not for a patent.

Mr. Huebner: Then it becomes pertinent as to what was the source of their information. Did they adopt it from the patent or did they adopt it from the thin air?

The Court: If this witness knows, he can answer, but he has testified he doesn't know. [354]

Mr. Huebner: And my question based on what other sources of knowledge he may have, then, is refused?

(Testimony of John N. Wolfram.)

The Court: Yes. I think it is entirely useless.

Q. (By Mr. Huebner): During the war period you had five or six engineers; when the war was over you cut that down. What was the reason for trimming the department, the research department?

A. I think the main reason was lack of business. I believe that practically all of our orders were canceled off the books.

Q. Was it the principal duty of these five or six engineers during the war period to translate this patent in suit into the AN fitting, is that what they were doing? A. No.

Q. What problems were they working on?

A. They were working mostly on practical problems which came up with different situations in the war. As for example when they shoot into an airplane and break tubing lines, and they want a quick-fix fitting to patch up the broken tube right there in the ship, problems of that nature.

Q. You are familiar, I assume with the AC-811 fitting? A. I am familiar with that, yes.

Q. That is exemplified, is it not, in Exhibits 23 and 24? Will you step down, please, and pick out from the physical exhibits any which exemplify the AC-811? [355]

(Witness does as requested.)

Q. Thank you. Exhibit 23 is a three-piece assembly, is it not, without any cut-away parts?

A. That is correct.

(Testimony of John N. Wolfram.)

Q. And the other one, Exhibit 24, is a similar assembly which has been screwed together and cut away in part? A. That is correct.

Q. What torque wrench was applied to Exhibit 24 in tightening it, what wrench torque?

A. I don't recall the exact figure now, but it was the normal torque which was to be applied to this fitting.

Q. How are you able, apart from the fact that they are marked as exhibits, how are you able to identify them as AC-811 fittings?

A. Well, I can tell generally from the appearance of the fittings, because I have handled AC-811 fittings many times before. And, furthermore, I got these fittings out of stock at our company. That is, I had them gotten out of stock.

Q. As they are in your hands today, what are the distinguishing features, if any, by which you are able to say, independently of where you got them, that these are AC-811 fittings?

A. Well, as I said, I can tell from the general appearance, [356] the gray color which is anodic treatment which we put on the 811 fittings, and the appearance of the nut, that is, the shorter relative appearance than the AN nut, and the slight shoulder on the nose of the body, for example.

Q. If they didn't have that characteristic color, those parts didn't have that color, and you were shown Exhibits 23 and 24 alongside of, let's say, similar size and type AN fittings which were col-

(Testimony of John N. Wolfram.)

ored the same, you wouldn't be able to tell them apart, would you?

A. If the fittings were made known to me that they are AN and 811, but it was not pointed out which was which, I would be able to tell them, yes.

Q. How would you be able to tell them apart?

A. As I mentioned before, the body, for example, has a small shoulder just before the thread, and I can recognize the angle of the body in this fitting as being somewhat steeper than the AN fitting angle is.

Q. Angle of what part?

A. The angle of the body.

Q. Of the body? A. Yes.

Q. By the angle of the body you mean the tapered point at the nose against which the inside of the flared tube fits? A. That's correct.

Q. This Parker AC-811, whichever you want to call [357] it—I guess we had better identify it specifically as the AC-811 manufactured by Mr. Parker and others—that was in general use in 1935, wasn't it?

A. Yes, the AC-811 fitting was in general use in 1935.

Q. By general use I mean they had been manufactured by the thousands at the time and immediately subsequent thereto.

A. I think that is a fair statement.

Q. Was this AC-811 the first of the Parker manufactured triple type fittings?

A. Yes, the AC-811 was the fitting which Mr.

(Testimony of John N. Wolfram.)

Parker's designation for it was the triple fitting.

Q. Is that AC-811 fitting exemplified, in so far as you know, in any Parker patent?

A. Well, I believe the original AC-811 was exemplified in the Parker patent 1,893,442.

The Court: Can I ask the witness a question? What is the difference between the AC-811 and the AN fitting?

The Witness: There are a number of minor differences, your Honor. In some of the small size 811 fittings, for example, the thread pitch, the number of threads per inch, is a little different, and the particular angle of the body seat, the beveled surface, is a little different. And I believe the length of the thread is a little different. [358]

The Court: You don't claim any patent because of the thread, do you, the length of the thread, or the number of times the nut has to go around in order to be tightened up?

The Witness: I don't believe that is a part of the present patent, no.

The Court: Substantially, then, the AC-811 is about the same as the AN fitting, is that correct?

The Witness: The present 811 fitting might be said to be that, yes.

The Court: We are talking about the 811 fitting that was made way back in 19—what did you say?

The Witness: '35.

The Court: 1935.

The Witness: There have been a few changes made in the '811 fitting since that date.

(Testimony of John N. Wolfram.)

The Court: Substantial changes?

The Witness: Yes, substantial as to principle.

The Court: What?

The Witness: Well, for example, the sleeve head angle has been incorporated.

The Court: Has been what?

The Witness: It has been placed or incorporated upon the 811 fitting, since 1935.

The Court: The original 811 didn't have that angle?

The Witness: That's correct. [359]

The Court: Any other thing?

The Witness: Yes. In some of the small-size sleeves the inside flare angle has been cut back steeper than it had been.

The Court: On the sleeve?

The Witness: The inside flare angle of the sleeve, yes.

The Court: In the original AC-811, was there any angle to the collar of the sleeve?

The Witness: On the outside surface of the head, do you mean?

The Court: Yes.

The Witness: No, there was no angle on that surface.

The Court: Excuse me for interrupting?

Mr. Huebner: That is all right, your Honor, those are pertinent questions.

Q. (By Mr. Huebner): The AC-811 examples which you have before you, Exhibits 23 and 24, when were they manufactured?

(Testimony of John N. Wolfram.)

A. The nuts and bodies were taken out of our regular stock. I do not know the exact date of manufacture. The sleeves were made up several months ago.

Q. Do those particular specimens embody any sleeve-head angle, that is to say, an angle on the outside of the sleeve? A. No.

Q. In other words, the outside of the sleeve head in [360] those particular specimens was truly cylindrical to start with, is that right?

A. The drawings which they are made from showed the sleeve head as being cylindrical. I did not specifically check them to see whether they came out perfectly cylindrical.

Q. Anyway, after they are tightened up that way, as in Exhibit—which one of them is tightened up and cut away? A. 24.

Q. Yes, 24, when it is tightened up and cut away that way, you can't tell by visual inspection whether there was originally a sleeve head angle or not, can you? A. No, not very well.

Q. Is it true that all AC-811 fittings, which have been supplied by anyone to the government, would have to be made and pass inspection as being made under the AC-811 government specifications?

A. I presume so. [361]

Q. And in that respect, if they were made within the past few years, they would correspond to the physical specimens in your hand, Exhibits 23 and 24, is that right? A. No.

Q. Well, then, will you clarify the facts?

(Testimony of John N. Wolfram.)

A. As I mentioned before, the 811 parts, as they were made in 1935, did not have a sleeve head angle and that angle has been incorporated into the specifications, and these samples, Exhibits 23 and 24, do not have the sleeve head angle.

Q. Now, will you pick out from the exhibits on the table examples of Masters and Collins assemblies of parts which make up so-called fittings, and which typify or embody in your opinion the Parker patent 2,212,183.

The Court: May I see those exhibits before they are lost among the pile there?

The Witness: Yes, your Honor.

Mr. Freeman: I am wondering if I might inject myself just one moment. When you are talking about AC-811, are you talking about it prior to 1940 or subsequent to 1940?

Mr. Huebner: I am not talking about it. I am leaving it up to the witness. If you want to clarify it, and there is something to be clarified, Mr. Freeman, that is quite all right.

Q. Now, you have selected from the exhibits, Plaintiff's [362] Exhibits 8, 6, 10, 9, 5, 11, and 7, is that correct?

A. I didn't follow the exhibit numbers.

Q. I say you have selected from the exhibits the following, and I identify them by exhibit number, and asked you if that was correct.

A. I didn't follow you as you read the exhibit numbers but I assume you read the correct ones.

Q. Now, pick out a cut-away example of a Masters fitting, or a Masters assembly.

(Testimony of John N. Wolfram.)

A. (Witness complying.)

Q. Will you identify it by exhibit number?

A. Plaintiff's Exhibit No. 8.

Q. Now, will you please state how you are able to identify that, forgetting about the exhibit tag attached; how can you identify that as a Masters fitting or a Masters assembly of parts?

The Court: I understood it was stipulated the other day that it couldn't be told where these fittings came from after they were delivered and put into a bin, that it didn't make any difference, they were all made to a certain standard, they were interchangeable, and nobody could tell by looking at the fitting itself where it came from.

Mr. Huebner: Except by the name or trademark that might be on the outside.

The Court: That's right. If there was some designation, [363] then somebody could tell whether it came from Masters or Collins or Parker, but if there was no designation and you put the three of them in a bin together, an expert couldn't tell them apart. That was the stipulation.

Mr. Huebner: I know it, your Honor, but I wanted to ask this witness, and I won't prolong this particular line of questioning, but is there any physical thing about that fitting which enables him to say it is a Masters fitting.

The Witness: Well, other than from the fact that I recognize this fitting as one that had been produced at the deposition and properly tagged ever

(Testimony of John N. Wolfram.)

since that time, the body has a trade-mark on it, IWM.

Q. (By Mr. Huebner): You can't tell from looking at it whether it had a flare or, rather, an angle on the head of the sleeve to begin with or not, can you? A. Yes, I think you can.

Q. How?

A. The angle still appears to be there.

Q. Did you tighten that one up?

A. Yes, I did.

Q. What wrench torque?

A. The normal wrench torque for this size and material fitting, which is 200 inch pounds.

Q. In that particular specimen, you say you observe an angle. By that, I presume you also observe a clearance between [364] the outside of the sleeve head and the inside of the nut.

A. Yes, there is a clearance at the lower end of the sleeve that you can see.

Q. The clearance in that particular specimen goes all the way up to the shoulder of the nut, doesn't it?

A. Well, no. On the one side, it shows it clearly in contact; on the other side, it gets very close, and it is pretty hard to say it goes all the way up.

The Court: While you are looking up your record, I think it is time to take our morning recess. The witness will remember about preparing the diagram.

Mr. Freeman: Could we have an extra five min-

(Testimony of John N. Wolfram.)

utes? I think the witness has some other things he would like to take care of, too.

The Court: All right. We will recess until 20 minutes after 11:00.

(Recess.) [365]

Q. (By Mr. Huebner): Mr. Wolfram, were you able to complete the sketches which were requested?

A. Yes, I made a number of sketches.

Q. You have handed me two sheets of paper. Will you put your initials on both of them, please?

A. (Witness does as requested.)

Mr. Freeman: You will provide us with photostatic copies?

Mr. Huebner: I was going to ask the court's permission to withdraw them after they were offered, so that we may make photostatic copies.

The Court: I have no objection.

Mr. Huebner: I would like to have these marked for identification as Defendants' exhibits.

The Clerk: B and C.

(The sketches referred to were marked Defendants' Exhibits B and C, for identification.)

Mr. Freeman: If you are going to offer them, you can offer them now. We have no objection.

Mr. Huebner: A was offered in evidence, I think.

(Testimony of John N. Wolfram.)

The Court: No; I think it was only for identification.

Mr. Huebner: I will ask some questions first, your Honor, before I offer them.

Q. (By Mr. Huebner): Mr. Wolfram, will you take these exhibits B and C, for identification, and go through the [366] figures which you have therein made, mark them by figure number, and describe what each one of those figures represents.

Mr. Freeman: Does your Honor have any objection to my standing alongside of the witness so that I may likewise see him?

The Court: We will all look over his shoulder, all except the reporters.

The Witness: Would you prefer this to be No. 6, or shall I start again with 1?

Mr. Huebner: It doesn't matter. Make them in consecutive order.

(Witness does as requested.)

Q. (By Mr. Huebner): Now, tell the court what each figure is.

A. In Figure 1 I have showed a slightly different shaping of the sleeve with a two-part angle or a double angle on the inside surface of the sleeve. The sketch is so labeled.

In Figure 2 I showed the reversal of the parts in which the nut has the external thread and the body has the internal thread.

Q. The same as in Exhibit A for identification?

A. Substantially the same, correct.

In Figure 3 I have indicated that the flare angle

(Testimony of John N. Wolfram.)

on the [367] body, and consequently on the tube itself, may be varied.

In Figure 4 I have indicated that the transverse shoulder on the sleeve and on the nut may be at a slight angle instead of straight across as shown in the patent.

In Figure 5 I have indicated that the body may have a small step or shoulder between the bevel and the thread of the body.

In Figure 6 I have indicated that the body may be formed with two angles instead of a single angle.

Q. Now, in these Figures 1 to 6, both inclusive, are the parts intended to be illustrated in finger tight condition or in normally wrench tightened condition?

A. Finger tight position.

Q. All right. Now, Figure 1, then, when parts there are wrench tightened to the proper torque, indicate to the court what the approximate position of the parts will be.

Mr. Freeman: Do you mean by dotted line?

Mr. Huebner: By red pencil, if you have one. If not, we will get one.

The Court: I have a red pencil.

The Witness: Thank you, your Honor.

(Witness does as requested.) [368]

Q. (By Mr. Huebner): Now, for the record, you have drawn in red pencil a modification whereby the head of the sleeve is shown to be in more intimate contact with the outside of the tube

(Testimony of John N. Wolfram.)

flare, is that right? A. That is correct.

Q. And, also, the head of the sleeve has advanced somewhat downwardly longitudinally of the flare. A. That is correct.

Q. And, also, you have shown the sleeve head expanded radially slightly, is that right?

A. That is correct.

Q. You haven't shown any difference in the relative position of what I will call the corner of the sleeve head to the inside of the nut; is that correct? In other words, there has been no change in the relationship between the outside of the sleeve head and the inside of the nut in the region of the corner of the shoulder, is that right?

A. No. I didn't draw the pencil line up quite that far, but I shall. That is a very close corner up there and I will just continue the line up as best I can.

Q. Is it your intention to illustrate the outside of the—the radially outside surface of the sleeve head and the inside adjacent surface of the nut as touching in this region of the shoulder?

A. Yes. There will be a limited amount of expansion [369] right at the corner of the sleeve head shoulder and touching will occur some place in that corner.

Mr. Freeman: Could he mark that corner?

Q. (By Mr. Huebner): Will you mark the corner with the letter C, meaning corner, and draw a lead line to it? A. (Witness complying.)

Q. You have written the word "Corner" in red

(Testimony of John N. Wolfram.)

pencil and drawn a lead line to the corner, right?

A. That is correct.

Q. Is it your interpretation of the patent that Fig. 1 would still be illustrative of the patent structure if there were a clearance between the inside of the nut and the outside of the sleeve at the region of the corner, but extending outwardly from it?

A. Well, I have illustrated these parts so shaped that when the sleeve head expands, it would contact in the region of the corner.

Q. In your illustrations here, then, Figs. 1 to 6, both inclusive, it will always contact on the radial surface in the region of the corner, is that what you mean?

A. Yes. It may contact on this radius of the nut. The nut is often formed with a small radius at that point, but it will have contact somewhere in this region.

Q. While we are talking about the nut, assume Fig. 1, as you have illustrated it, but assume an actual clearance [370] between the outside of the sleeve head and the inside of the nut on the entire outside surface up to the corner. Would that be within the teaching of the patent?

A. On the outside of the sleeve head and the inside wall of the nut up to the corner?

Q. Yes. If there was a clearance all the way up there, would that be within the teaching of the patent?

A. No. If the clearance goes up to the corner,

(Testimony of John N. Wolfram.)

but then disappears in the corner, that is within the teaching of the patent.

Q. But it would be outside the scope of the patent, then, in your opinion, if the clearance went all the way up to the corner, is that right?

A. No. I believe what I said was that if the clearance goes all the way up, but then disappears at the corner, then it would be within the patent.

Q. In other words, there is no clearance from the corner down?

A. From the corner down, that is correct.

Q. And if there is no clearance from the corner down, that still would be within the teaching of the patent? That is what I want to get clear one way or the other. I will say it again. I will clarify it.

If there is a clearance all the way from the corner in Fig. 1 down to the end of the sleeve head, would it be within [371] the teaching of the patent?

A. It would be within the teaching of the patent when you are speaking of the portion of the sleeve head below the corner, and there is contact at the corner.

Q. Let's assume then, as you say, contact at the corner, but no contact at all below the corner; in other words, there is, let us say, a point contact so far as the outer wall is concerned—

A. Well, I think if there is a small amount of side wall contact in the region of the corner here on the side wall and extending down from the corner a short distance, and then was spaced away

(Testimony of John N. Wolfram.)

from the—or there was a clearance between the two from there on down, that would be within the teaching of the patent.

Q. All right. Take your language, the region of the corner. Will you draw a circle in red illustrating what you mean by the region of the corner?

A. (Witness complying.)

Q. Will you mark that region of the corner, please? A. (Witness complying.)

Q. Now, I call your attention to the fact that you have drawn this circle so that it includes about 25 per cent of the length of the outer wall of the sleeve head. That was what you intended?

A. I did not mean to chop it off at a specific per [372] cent, but it is generally in that vicinity which you would call the region of the corner.

Q. All right. Then it is your understanding that the patent requires that there be contact between the outer wall of the sleeve head and the inner wall of the nut throughout that area which you have drawn, indicated by a circle and called region of the corner, is that right?

A. No, not at all. As long as you have contact at some point within the region of the corner, not throughout the region of the corner. [373]

Q. Well, where is the contact absolutely necessary in order to follow the patent?

A. Well, I think from the terms that we have used here, the contact is necessary at some point within the region of the corner.

Q. Well, suppose you had no contact between,

(Testimony of John N. Wolfram.)

let us call them the horizontal surfaces, which means the shoulder surface, the horizontal shoulder surface of the sleeve, and the corresponding shoulder of the nut, if you have no contact there it wouldn't work, would it?

A. No, not in this form.

Q. Well, you have to have that contact in order to push the sleeve head on, don't you?

A. That's correct.

Q. So that is necessary, isn't it?

A. Yes.

Q. Now, is it necessary under the teaching of the patent that there be a contact on the radial, that is, the external radial circumferential surface of the sleeve head with the inside of the nut?

A. Yes, I think there should be a point of radial contact within that region.

Q. Again in order to comply with the patent it is your feeling, then, that that point of radial contact should really extend from the corner down to about where your circle draws [374] a line across?

A. No, it need not necessarily extend that far, just as long as there is some point within that region that is in contact.

Q. That is some point within the region on the circumferential surface, that is your point, is it?

A. Yes, that is a fair statement.

Q. In none of these sketches have you shown as a possible modification a relief in the nut instead of taper on the sleeve. Do you mean the court to infer that if the nut were relieved instead of taper-

(Testimony of John N. Wolfram.)

from the—or there was a clearance between the two from there on down, that would be within the teaching of the patent.

Q. All right. Take your language, the region of the corner. Will you draw a circle in red illustrating what you mean by the region of the corner?

A. (Witness complying.)

Q. Will you mark that region of the corner, please? A. (Witness complying.)

Q. Now, I call your attention to the fact that you have drawn this circle so that it includes about 25 per cent of the length of the outer wall of the sleeve head. That was what you intended?

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(Testimony of John N. Wolfram.)

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Q. Again in order to comply with the patent it is your feeling, then, that that point of radial contact should really extend from the corner down to about where your circle draws [374] a line across?

A. No, it need not necessarily extend that far, just as long as there is some point within that region that is in contact.

Q. That is some point within the region on the circumferential surface, that is your point, is it?

A. Yes, that is a fair statement.

Q. In none of these sketches have you shown as a possible modification a relief in the nut instead of taper on the sleeve. Do you mean the court to infer that if the nut were relieved instead of taper-

(Testimony of John N. Wolfram.)

ing the sleeve it would be outside the scope of the patent? A. No, I don't mean to infer that.

Q. That would be another illustration of the expression "so shaped," wouldn't it?

A. I think if you took the specific structure that you had in mind, that you could read the claim upon it.

Q. Will you very quickly draw one figure and number it 7 and illustrate a substitute form wherein the relief necessary is in the nut rather than on the sleeve head?

Does it make you nervous if we watch you draw?

A. No, sir, not at all.

Q. All right.

(Witness sketching on paper.)

Q. Would you label it Figure 7, please? [375]

Now, you have added Figure 7, Mr. Wolfram, to Exhibit C, for identification?

A. That is correct.

Q. In Figure 7 you have illustrated the head of the sleeve as being truly cylindrical on the outside, haven't you? A. Yes.

Q. And you have shown the relief desired by making a conical recess, or, let us say, a tapered recess, on the interior wall of the nut?

A. That is correct.

Q. And in your opinion that modification would follow the teaching of the patent and be within the spirit of it?

A. Not reading the claims very carefully right now, I think that would.

(Testimony of John N. Wolfram.)

Q. One other possible modification I would like to ask about. Supposing instead of making the inside of the nut tapered like that you were to draw a straight interior with a little shoulder on the inside of the nut, that would also be a possible modification, wouldn't it? A. I think it would.

Q. Just illustrate that to show that form, will you, and mark it Figure 8?

A. I might say that I neglected to put the tube in Figure 7. [376]

Q. Now, will you label that Figure 8, please, and hold it up for the court to see?

(Witness does as requested.)

Q. You have drawn Figure 8 on Exhibit C, for identification? A. That is correct.

Q. And that Figure 8 illustrates another modification such as you conceive to be within the scope of the patent in suit?

A. Yes. I haven't thought of that before, but I think that the claim would probably read on that.

Q. Now, supposing we go one step further and we don't use any external angle on the sleeve head, nor any angle or particular recess on the inside of the nut, but we provided a clearance between the outside of the sleeve head and the inside of the nut, which is represented by parallel walls, would that be within the teaching of the patent? So that you can think about that more clearly, perhaps it would be wise if you made a sketch illustrating that conception and we can talk from the sketch.

(Testimony of John N. Wolfram.)

Mr. Freeman: Why don't you give him a drawing of that and we will save time?

Q. (By Mr. Huebner): I will show him a rough sketch that I made so he can readily see what I am talking about. In other words, you have the outside of the sleeve head and [377] the inside of the nut both truly cylindrical and parallel, but spaced far enough apart to give you the desired clearance.

A. No, I don't think that would come within the scope of the patent as you have it drawn.

Q. Or as I have described it, because that is what is in the record? A. Yes.

Q. I believe you said, or somebody said during the course of these proceedings that hoop tension was an important functional result when the parts are put together; do you recall that? A. Yes.

Q. Now, hoop tension is your expression, or perhaps industry's expression, for the tension that is exerted by the metal employed in the sleeve that goes in the fitting, the tendency of the metal to return to its original cold form, is that right?

A. The latter part of your statement is correct.

Q. And all metal has some elasticity, doesn't it?

A. Yes. [378]

Q. Now, referring to Exhibit 24, which is a cut-away of a Parker 811 fitting, when those parts are tightened up wrench tight, as illustrated in that cut-away, there will be hoop tension present, will there not?

A. There will be tension in the head of the

(Testimony of John N. Wolfram.)

sleeve, but it won't be the same as in the Parker patent.

Q. Will you explain that difference to the court?

A. Well, in the Parker patent, when the lower end of the sleeve head expands and does not go into contact with the wall of the nut, there is a sort of a free end there, you might say, whereas in this case the head of the sleeve is expanded, but it is wedged out against the wall of the nut.

Q. In other words, in the exhibit in your hand, in addition to hoop tension, there is also a pressure concentrating on the axis imposed by the nut, isn't there?

A. That is correct.

Q. So that we have two forces in that one. We have hoop tension, plus concentration in force of the nut, that is right, isn't it?

A. That's right.

Q. In the Parker patent, the theory is to utilize only hoop tension and not utilize concentration pressure by the nut?

A. The hoop tension at the lower end of the sleeve, that is correct. [379]

Mr. Huebner: I would like to have marked for identification a sheet of paper on which there is the legend, "Fig. 86."

The Clerk: Exhibit D for identification.

(The document referred to was marked Defendants' Exhibit D for identification.)

Mr. Freeman: If you are going to ask this witness to identify and describe one of your prior art

(Testimony of John N. Wolfram.)

publications, then I am going to object to it on the basis that it is improper cross-examination. If you are using it to test this man's ability to testify here, then I have no objection. I want you to limit your questioning of this witness to the latter phase, that is, testing his ability.

Mr. Huebner: I haven't asked any question yet.

Mr. Freeman: I happen to know the photostat that you have there, and I am just making that suggestion.

The Court: Of course, I don't have the prior experience and the prior knowledge of counsel, so I have no idea what is going to be introduced. Of course, there is no question before the court, there is no objection before the court, and there is nothing before the court at this time in regard to this exhibit.

Mr. Freeman: Except my admonishment to counsel.

The Court: Which counsel may or may not pay heed to.

Q. (By Mr. Huebner): Mr. Wolfram, I show you Exhibit [380] D for identification, which is a photostat of something under which is the figure 86. The photostat has been colored so that apparently certain parts appear in different colors. Will you look at that? Now, as a draftsman and one experienced in this field, does that mean anything to you?

A. Yes. This is a quarter section of a three-piece fitting.

(Testimony of John N. Wolfram.)

Q. Will you identify the parts and with red pencil write your identification on that sheet?

A. You wish to have the names of the parts?

Q. The names of the parts.

The Court: Maybe he'd better have a black pencil.

Q. (By Mr. Huebner): Try this ball point pen.

A. I will use this one.

Q. In green ink, which finally wrote on the surface, you have written the word "nut" and drawn a line to the blue part.

A. That is correct.

Q. Element C, is that right?

A. That is correct.

Q. And you have written the word "body" and taken the lead line over to the green part, which is Element A, and you have called that the body?

A. That is correct.

Q. Now you have written the word "sleeve" and drawn a [381] lead line to the part marked in reddish-orange color, which is D on the sketch.

A. That is correct.

Q. And you have written the word "pipe" and drawn a lead line to the part shaded in yellow, marked B, is that right?

A. That is correct.

Q. Why did you use the word "pipe" instead of "tube" at that point?

A. Well, I kind of recognize this figure and I happen to know that it is for lead pipe.

Q. Let's confine it to the drawing now. Can you tell from the drawing itself whether it is lead pipe or steel pipe or any other kind of metal?

(Testimony of John N. Wolfram.)

A. No, but I suspect it would be a soft metal because of the thickness of the pipe.

Q. You consider this illustration to show an undue thickness of pipe?

A. Yes, I think it is thicker than you ordinarily use with flared fittings.

Q. Now, are these parts in Exhibit D for identification assembled? A. Yes, they are.

Q. Do you find that this sleeve has a clearance on the outside between it and the nut? [382]

A. Yes, there is clearance between the sleeve head and the nut extending along the entire length of the sleeve.

Q. Have you any means, by inspecting that drawing, and without reference to any printed data, of determining what size fitting, if any, this might be limited to?

A. Do you refer to the diameter of the pipe?

Q. Well, the fitting itself. Is there anything about that picture, D for identification, that in your mind confines it to a size 2 or a size 32, or any other size? A. No, not directly.

Q. The same parts, then, as illustrated there could be employed in a small fitting or a large fitting? A. I presume so. [383]

Q. In the normal tightening of a fitting, such as illustrated in Exhibit D, there would be hoop tension present, would there not, after the device was wrench tight?

(Testimony of John N. Wolfram.)

A. Well, that would depend upon whether or not the sleeve head expanded.

Q. Well, suppose the sleeve head expanded, that is, the part in reddish-orange here, isn't it, suppose it did expand?

A. The head part is the part that is enlarged and is against the flare of the tube.

Q. Well, now, there would still be hoop tension, even if the head came out and touched against the inside of the nut, wouldn't there?

A. Yes, there would, if the sleeve head expanded there would be hoop tension.

Q. And there would also be present a clearance, would there not, in the normal use of a fitting such as illustrated in Exhibit D, even after tightening so that the outside of the sleeve head would not actually contact the inside of the nut?

A. Well, that would depend on the specific proportions of the fitting which you drew up.

Q. Well, with your knowledge of the proportions that are ordinarily used in fittings of this type, doesn't that space that is shown here in the drawing between the outside [384] of the sleeve head and the inside of the nut, indicate that there would always be a clearance even after tightening?

A. Well, I am not sure that there would, even though it looks like a large clearance. If you made the parts out of soft materials, you could expand the sleeve considerably.

Q. You will notice that the space illustrated is almost half as great in cross-sectional distance as

(Testimony of John N. Wolfram.)

the shoulder between the nut and the sleeve-head, is that correct?

A. It appears to be about a third to one-half.

Q. Isn't a third to one-half open space like that, a third to one-half as much as the contacting area between sleeve head and nut, sufficient, in the physical fittings that are before us here, to always provide a clearance after tightening?

A. I don't think you can make a categorical statement that way, because the relation of the sleeve head to the nut and the amount the sleeve head expands doesn't depend upon what the shoulder contact is between the nut and the sleeve.

Q. Isn't it apparent to you from inspection of the drawing itself, and not from anything that has been said, that the draftsman or conceiver of this particular thing illustrated in Exhibit D, intended to enlarge the interior of the nut so there would be a clearance? [385]

A. There is a clearance for that position of the fittings, yes.

Q. And the clearance that is shown there requires a special machining operation, doesn't it?

A. Yes, it is an undercut.

Q. That is what I wanted to bring out. And will you mark the word "Undercut" and draw a lead line to it and show it to the court?

(Witness does as requested.)

Q. So that we can explain it a little further, I call your attention to the threads. In the ordinary job the interior of the nut would have had a di-

(Testimony of John N. Wolfram.)

ameter which was a continuation of the peak of the threads, wouldn't it?

A. Of the root diameter of the thread, small diameter.

Q. And therefore there would have been a small diameter running right up and down as I am indicating with the pencil? A. That is correct.

Q. So that what you call the undercut was an additional machining operation to provide a larger internal diameter, and, consequently, a clearance?

A. That is correct.

The Court: Well, I notice it is 12:00 o'clock. I don't anticipate that you are going to finish this witness in the next few minutes.

Mr. Huebner: I doubt it, your Honor. [386]

The Court: So I think we will take our noon recess at this time. We will recess until 2:00 o'clock this afternoon.

(Whereupon, at 12:00 o'clock noon, a recess was taken until 2:00 o'clock p.m. of the same day.) [387]

Los Angeles, California, June 20, 1950,
2:00 o'clock, P.M.

JOHN N. WOLFRAM

the witness on the stand at the time of recess, having been heretobefore duly sworn, resumed the stand and testified further as follows:

(Testimony of John N. Wolfram.)

Cross-Examination
(Continued)

By Mr. Huebner:

Q. Mr. Wolfram, referring to the modification of the patent in suit, which you suggested in Exhibits B and C for identification, is it possible that there might be one other? For example, where the head of the sleeve is concave so that there would be sufficient clearance between the head of the sleeve and the interior of the nut?

A. Not the way you have it sketched there.

Q. Well, will you make a sketch of what might be interpreted as coming within the scope of the patent, having that possible modification in mind?

A. That is a conical surface on the sleeve head?

Q. A cut-out section on the sleeve head.

A. All right. (Witness complying.)

Q. Will you initial that sheet, please, and mark the sketch figure 9?

A. (Witness complying.)

Mr. Huebner: I will ask that this be marked for identification [388] Defendants' Exhibit E for identification.

The Clerk: E for identification.

(The document referred to was marked Defendants' Exhibit E for identification.)

Q. (By Mr. Huebner): Will you point out to the court on E for identification the feature which you have there illustrated?

(Testimony of John N. Wolfram.)

A. I have formed in the side wall of the sleeve head a small concave portion, which I believe is what Mr. Huebner wished me to do.

Q. I wanted you to do that, and now I will ask you if in your opinion the modification which you have exhibited to the court, E for identification, is within the spirit of the teaching of the patent in suit?

A. I think it is.

Q. Does it make any difference just how deep this concavity is in the face of the sleeve head?

A. Yes. I would say it makes quite a difference.

Q. How deep could it be proportioned to the cross-sectional thickness of the sleeve head?

A. Well, it would have to be quite shallow in order to retain what we might call a solid sleeve head. It would have to be quite shallow.

Q. So the one that is shown here, you would consider that to be a solid sleeve head? [389]

A. The way I have it shown there, it would probably be considered a solid sleeve head.

Q. Now, if the part that you called "pipe" in Exhibit D for identification were of a relatively soft metal and the nut were tightened down on the sleeve, there would be probably some expansion of the sleeve, would there not?

A. I doubt it very much.

Q. Well, it is a relative matter?

A. I don't think there would be.

Q. But even if you had a soft metal tube and a little harder sleeve, there would still be some expansion of the sleeve head, wouldn't there?

(Testimony of John N. Wolfram.)

A. I don't think that you would get expansion with that figure there. In fact, I don't think that the entire drawing—I think it is quite obvious that no sleeve head expansion is anticipated.

Q. I see. Well, then, if there is no sleeve head expansion in Exhibit D for identification, when the nut is tightened up, there would always remain clearance between the outside of the sleeve head and the inside of the nut, would there not?

A. If there is no expansion of the sleeve head, then you would retain whatever clearance you started with.

Q. Incidentally, do you consider the illustration in Exhibit D for identification to be within the spirit of the [390] teaching of the patent in suit?

A. No, not at all.

Q. Would you tell the court why not?

A. Well, in the first place, it is quite obvious that in this patent it is not anticipated that there will be any expansion of the sleeve head. One reason I say this is the fact that the sleeve head diameter here is very close to the root diameter of the thread, and if there is any sleeve head expansion, you would never get the sleeve out of the nut, and it would complicate disassembly and give you a number of disadvantages.

Q. That is about the only difference, then, that you see between this illustration, D for identification, and the patent?

A. Oh, no. This patent or this illustration, not only does it not provide for sleeve head expansion,

(Testimony of John N. Wolfram.)

I mean it doesn't anticipate sleeve head expansion, but even if you should get expansion in the sleeve head, there is no thought here of getting free expansion with hoop tension at one end of the sleeve, and of limiting your sleeve head expansion at the other end of the sleeve. [391]

Q. At what end of the sleeve do you want to limit sleeve head expansion under the teaching of the patent?

A. Well, at the region of contact between the nut shoulder and the sleeve shoulder.

Q. Do you have to limit expansion by confining the parts together? I thought that is the zone where you said there was the least expansion anyway, or let's say the intermediate zone, at least.

A. That is the region where we said there would be a limited amount of expansion, yes, the intermediate zone.

Q. And then you think that this doesn't follow the teaching of the patent because there isn't shown to be a contact between the external circumference on the sleeve head and the inside space of the nut?

A. Well, there is no provision here for limiting the expansion at the upper end of the sleeve while you permit free expansion at the lower end of the sleeve.

Q. Your point is that the patent requires that there be a physical limitation of radial expansion of the sleeve head at the shoulder area?

A. The patent definitely shows and states that provision is provided for limiting the expansion of the sleeve head in that region.

(Testimony of John N. Wolfram.)

Q. Well, is that why, then, that you agreed that your sketch, Figure 8 in Exhibit C, for identification, is within [392] the scope of the patent?

A. Yes, Figure 8 sketch here shows a step in the wall of the nut and provides a means for limiting the expansion at the shoulder end of the sleeve.

Q. An actual physical confinement of the shoulder area by the nut?

A. It provides the means for such limitation.

Q. And that is one of the principal distinctions, then, that you draw between what is under the patent and what is outside the scope of the patent?

A. Yes, I think that that is one of the features of the patent.

Q. Then, if it were physically demonstrated by measurement or by the exhibits themselves that the fittings here accused, or the parts assembled here accused to be infringements of the patent, have no actual contact between the circumferential face of the sleeve head and the corresponding cylindrical interior of the nut, such a device would be outside the patent in suit, wouldn't it?

A. If the device didn't have any provision for limiting the contact in that region, while providing means for having free expansion at the lower end of the sleeve, if it didn't have those things then it wouldn't be under the patent, that is, it wouldn't be under certain claims of the patent.

Q. All right. Which claims? 2 and 3, [393] isn't it?

(Testimony of John N. Wolfram.)

A. I think that specific provision is in claims 2 and 3.

Q. Claims 2 and 3, is that right? A. Yes.

Q. Will you please take this Exhibit D, for identification, and refer to a chart which I will call your attention to that you prepared. Plaintiff's Exhibit 49, do you have a copy of it? I will show you our copy to save time. It was represented by you to be Figure 2 of the patent in suit modified by lines that you drew on to indicate zones. Do you have your copy? A. Yes, I do.

Q. Will you take Exhibit D, for identification, and draw similar zone areas on that, using green ink?

Mr. Freeman: Do you have any green ink?

Mr. Huebner: He has it in his fountain pen, that is why I suggested that he use it.

A. I don't quite see how I can draw the similar zone areas, because this Exhibit D doesn't have those zones.

Q. (By Mr. Huebner): It doesn't? Well, do the best you can. As nearly as you can, make similar zones, put them in, and if they don't apply, then explain to the court why they don't apply.

Mr. Freeman: I think he already answered it, that he couldn't do it because it didn't apply. [394]

Mr. Huebner: All right. We will take it another way, then.

Q. (By Mr. Huebner): Your Exhibit 49 has a zone A, doesn't it? A. That's right.

Q. And that zone A extends from slightly above

(Testimony of John N. Wolfram.)

the shoulder on the sleeve upwardly, is that correct?

A. That's correct.

Q. Now, isn't there a similar region in Exhibit D, for identification?

A. Well, there is a portion of the sleeve that fits the tube that extends upward along the tube, if that is what you mean.

Q. I put my pencil in the nut area down near where the nut rests on the shoulder of the sleeve, wouldn't a line drawn across there correspond to your line which delineates zone A?

A. Well, it would correspond in a way, that is, it would correspond in relative position on the sleeve, perhaps, but it wouldn't define the same thing that the line defines in Exhibit 49.

Q. Well, your line, which is the lower extremity of zone A in Exhibit 49, indicates that from there on up is the zone of least resistance, doesn't it, or least expansion? Which is it? [395]

A. No, I said that was the zone in which we don't want expansion.

Q. All right. In Exhibit 49, the patent figure, you don't get expansion, do you?

A. Not at that upper part of the sleeve.

Q. Not in zone A. If you drew a line across in a corresponding physical position in Exhibit D, for identification, would you get any expansion from that line outwardly toward the letter B?

A. Expansion toward the letter B? I am not sure I followed the question.

Mr. Huebner: Read it, please.

(The question was read by the reporter.)

(Testimony of John N. Wolfram.)

Q. (By Mr. Huebner): I will qualify it so it will be a little clearer. Would you get any radial expansion in the area from such a line outwardly toward the letter B? Actually you wouldn't get any, would you?

A. I don't believe you would get it if you followed that drawing. [396]

Q. Now, will you please draw a line across so that it will correspond as nearly as possible to the line defining the lower part of the zone A?

A. Speaking of the physical position?

Q. Yes.

A. (Witness complying.)

Q. Will you kindly place the letter A in the area represented to be defined in part by that line?

A. (Witness complying.)

Q. Now, in your Exhibit 49, you have an intermediate line representing part of zone B, that is the one extremity of zone B. Where is the nearest point in Exhibit D for identification where such a line could be similarly drawn?

A. Are you now speaking of the structural similarities?

Q. I am speaking of the zone that is illustrated in this Exhibit D for identification. Put a line B on Exhibit D for identification as nearly approximating the corresponding position of the line that I am pointing to, being an intermediate line on Exhibit 49.

A. That is what I meant. You mean approximately the structural or physical position.

(Testimony of John N. Wolfram.)

Q. All right. You do it the way you feel it should be done. [397]

A. (Witness complying.)

Q. Now, please place the letter B intermediate the two lines.

A. (Witness complying.)

Q. Then you have in your Exhibit 49 a zone C, which requires a third line. Will you kindly place on Exhibit D for identification the best approximation of the corresponding line?

A. Do you want that labeled "C"?

Q. And label it C.

A. (Witness complying.)

Q. Thank you. In this zone B on the thing illustrated in Exhibit D, would there be some expansion of the sleeve when the nut is tightened?

A. No, I don't think so.

Q. Will you tell the court why not?

A. Well, because I think that that fitting with the use of lead pipe—well, first of all it is difficult to tell exactly what is there, because I don't know whether that fitting is for a very small diameter tube or a large diameter tube.

Q. Well, may it be assumed that this disclosure is applicable to either a small or a large or a middle sized tube.

A. Well, if you used it for both the large size and [398] small size tube, would you use the same relative proportions of the parts, dimensionally and cross-section?

Q. I presume you would. You take an illustra-

(Testimony of John N. Wolfram.)

tion that you can conceive based on this drawing where there would be expansion in the zone B.

Mr. Freeman: I suggest you give him a hypothetical question, rather than asking him to assume something. You tell him what you want and then get his answer.

Mr. Huebner: I prefer to do it my way, unless otherwise directed by the court.

Will you read the question, please?

(Question read by reporter.)

The Witness: I would have to use my imagination to try to figure out just how to proportion that thing so I would know I would get expansion in the zone B.

Q. (By Mr. Huebner): Suppose you took an aluminum tubing and suppose you took the ordinary standard metals that are used for one of the current fittings for the other parts. Would you get expansion there in the zone B?

A. I think that would depend largely on the diameter tube that you used and the relative proportion that you make the parts.

Q. Would you get an expansion in zone C?

A. I will say this, if you get expansion in zone C, you would get expansion in zone B, also. [399]

Q. You would get expansion in zone C if you used the right kind of combination of materials, wouldn't you?

A. Yes, I think you would get expansion in zone A along with it.

Q. Now, would you refer to the patent in suit,

(Testimony of John N. Wolfram.)

please? Look at Fig. 2 to start with. There are two angles, to which I believe reference has been made. I would like first to inquire concerning the angle between the inside of the sleeve head and the outside of the tube. It has been called, has it not, a differential angle?

A. Yes. The angle bounded by the lines B and C, I think we refer to as a differential angle.

Q. What does the patent teach that that angle in there could be?

The Court: What do you mean?

Mr. Huebner: In degrees, your Honor.

The Court: You mean in degrees?

Mr. Huebner: In degrees.

The Witness: I don't recall that the patent states what the degrees should be.

Q. (By Mr. Huebner): How would one manufacturing this item from the patent know what degree angle to put in there?

A. Well, the drawing clearly illustrates that it is a small angle.

Q. What is your interpretation of a small angle as it [400] applies to this disclosure, in degrees now? Let's get down to brass tacks.

A. I think that the angle in degrees could vary depending upon what you are designing the fitting for, whether you are designing a lightweight fitting or a heavyweight fitting for maybe railroad work, or something else.

The Court: I wonder if I could ask a question for my own information? This aluminum tubing

(Testimony of John N. Wolfram.)

flared, is it bought flared or is it flared upon the job?

Mr. Huebner: You mean is it flared prior to being put into the point of use?

The Court: Yes.

Mr. Huebner: Well, it can't be very well flared in stock, because you have to get the fitting parts on more or less at the location, and I believe that most of the flaring is done by the consumer.

The Court: Well, then, the angle of the flare depends entirely upon the consumer, that is, he can make it either greater or smaller, more or less flared, is that right?

Mr. Huebner: He could, yes.

The Court: Well, then, the patent doesn't control, does it, the angle? In other words, the sleeve is made in a certain way or a certain angle, but the patent doesn't control what the consumer does relative to the tubing? [401]

Mr. Huebner: I don't know whether it does or doesn't. So far as patentwise goes, the consumer can put in whatever kind of a tube he wants. Actually in practice the consumer will follow a certain standard specifications when he flares the tube.

The Court: Well, that is true, but you know that human hands, even though they have a certain specification there is no certainty that they will follow the specification.

Mr. Huebner: That is true, and if they don't follow the principle that is shown here and flare the tube in such a way that there is what they call an

(Testimony of John N. Wolfram.)

initial angle, there would never be any infringement. The action of the customer in flaring the tube and then assembling these parts is an absolute necessity to establish a complete case of infringement, if in fact there is a copying of the patent.

The Court: The only thing the manufacturer can do, that is, as far as the fitting is concerned, is to determine the angle on that part of the sleeve. Now, it is entirely up to the consumer to insert a tube that will coincide or will fit the sleeve.

Mr. Huebner: And if he doesn't do it, he is obviously outside the patent. And if he doesn't do it and it isn't shown that he has done it, these people who make the parts and sell them cannot possibly be held as infringers.

The Court: There is nothing in the patent, is there, to [402] indicate what the slope or what the angle is on the sleeve, that is C on Figure 2?

The Witness: I think what the patent states is that this angle is cut away at an angle that is great enough so that you will obtain initial contact at the point of the sleeve, and it doesn't matter too much exactly what the angle is, as long as you bring about that result.

The Court: What I am trying to get at is this, that you have no control over the consumer, the consumer is the one that determines the angle of the flare.

The Witness: Yes, you do have control over the consumer, particularly in the case of the AN fit-

(Testimony of John N. Wolfram.)

tings, because there is a specification which sets forth the angles of the flare.

The Court: Let me ask you a question, then. As an expert can you support your patent by plans and specifications that have been drawn subsequent to the issuance of the patent by the Army or the Navy.

The Witness: Well, I am not sure that that is a question for a technical expert.

The Court: That was my understanding of your statement, that the plans and specifications had indicated the angle. Supposing the plans and specifications of the AN fitting do indicate the angle, does that help you on the patent?

The Witness: I perhaps don't know too much about the law [403] part of the questions, but——

The Court: Excuse me. I will withdraw that question and I will ask your counsel. This is getting into a legal question.

Mr. Freeman: As long as these defendants make a fitting which brings about initial toe contact, that is, contact between the inside angle on the sleeve and the outside of the flare, that is where it engages first at that particular point, and that the remaining portion of the angle of the sleeve, and, again, the inside angle, is spaced away from the flare, they come within the scope and spirit of claim 1 of the patent.

The Court: What I am getting at is this: the holder of the patent, evidently from the evidence that has been discussed here and the discussions

(Testimony of John N. Wolfram.)

that have ensued, has absolutely no control as far as the consumer is concerned relative to the flare; it may make a larger flare or make a smaller flare, that is as far as angle is concerned. Now, what I am wondering is this: Can you develop a fitting or a gadget, or a sleeve, give it a certain angle, and then say, now, the only purpose of this is that it contacts at the toe, if it contacts at the toe we are entitled to the patent?

Mr. Freeman: Your Honor, we must start on the premise that the fitting is to be used in connection with flared tubing, and when the tubing is flared it is flared in accordance [404] with the angles or the relationship of the two parts between which the flare of the tube is adapted to be gripped. Now, if your Honor is going to drill a hole in a board and put a bolt in that board, and the bolt was a quarter-inch bolt, your Honor wouldn't use a three-sixteenths bit to do that, nor would your Honor likely use one that is five-sixteenths, you would use that which is the proper one to do that particular job. Now, in this particular case, we have here a situation where—I am now talking about initial toe contact brought about by what has here been referred to as the differential angle—both defendants in this case so arrange their sleeve, that is, the inside angle on the sleeve, so that there is initial toe contact. Now, of course it is very easy to make a thing not work, anybody can do that, you can gum it up so it just won't work. But we must start on the premise that Parker taught the world

(Testimony of John N. Wolfram.)

for the first time initial toe contact, along with the remaining portion of the claim, by which a very definite and beneficial result was obtained. Now, they come along, the defendants, and employ or make fittings to obtain every advantage that Parker for the first time taught the world. If they want to make a fitting that has all these things that they are talking about in the prior art, again I say we don't care. But these examples that have here been given, if I were to ask Mr. Masters if he ever made a single one of those examples, his [405] answer would be no. So that when we talk about an angle on a flare, or the position of the flare, we are talking about something that is rather definite.

The Court: Do I understand that your contention is that any sleeve that makes a toe contact, initial toe contact, is an invasion of the patent rights?

Mr. Freeman: Your Honor, if you will permit me, and I say it with great respect to your Honor's ability to follow claims, you must take a claim in its entirety, you cannot pick out a part of a claim and say, that's old, that's old, because even if that is true, your Honor, you still are entitled to a patent, and that was the question that your Honor asked my good friend, Mr. Huebner, and he said in as polite language as he knows how, "Maybe." I am going to say definitely to your Honor that when you take even these parts that your Honor has referred to many times as within the public domain, that if you take that which is in the public

(Testimony of John N. Wolfram.)

domain, you rearrange those parts, you make the changes that bring about an overall result defined within the overall claim, and they appropriate that, then they are an infringer, and the patent with respect to the overall claim is a valid contribution.

Now, coming back to your Honor's specific question, that initial toe contact, that isn't all of the claim.

The Court: But that is part of it. [406]

Mr. Freeman: That is part of it.

The Court: You just got through saying that that is one of the things that you object to about the Masters fitting, that it was a fitting in which there was initial toe contact.

Mr. Freeman: Plus the rest of it. They didn't take that alone; they took the entire combination of the claim.

The Court: Well, excuse me for breaking in. I was trying to clarify it for myself, Mr. Freeman, not for you or the witness. I am the fellow that has to do the deciding around here.

Q. (By Mr. Huebner): While we are on that subject, I will ask you to refer to claim 1 of the Parker patent in suit, and I want to read parts of it and ask you questions as we go along. Quoting, first:

"In a coupling for tubes having the ends thereof flared."

That is personally known to you to be an old subject-matter in the art, isn't it?

A. Yes, there have been flared tube [407] couplings.

(Testimony of John N. Wolfram.)

Q. Reading on:

“coupling members having threaded engagement with each other.”

You know that to be old in the art prior to Parker, don't you? A. That in itself, yes.

Q. Reading on:

“one of said coupling members having a seat associated therewith adapted to engage the inner face of the flared end of the tube.”

You know that to be old in the art prior to Parker, don't you? A. That in itself.

Q. And that, taken in association with all that has preceded in the quotations, is old in the art, isn't it? In other words, so far, we are up to this point building up old prior art, aren't we?

A. I think that is a fair statement.

Q. All right. Now, I am going to quote some more.

“and the other coupling member having a clamping shoulder,”

That, added to the other features, is also old in the art, is it not? A. I think that is true.

Q. I am going to quote some more.

“a sleeve surrounding said tube and having a solid head provided with a shoulder against which the [408] clamping shoulder of the coupling member engages,”

That feature, added to the previously referred to feature, is also old in the art prior to Parker, isn't it; known to you personally to be old in the art?

A. I think that is so.

(Testimony of John N. Wolfram.)

Q. I will read some more.

“said head having the inner surface thereof provided with a coniform flare”

To that point, ending the quote at that point, it is also old in the art to add that to what we have already quoted, isn't it? A. I think so.

Q. Now, I will read on:

“so shaped that the initial contact of the head with the flared end of the tube is at the free end of the head and adjacent the outer end of the flared end of the tube,”

In your opinion, is that last phrase, when added to the previously quoted phrases, old in the art or new? A. I think that is new.

Q. You think that is new with Mr. Parker in this patent? A. I think so.

Q. Now, we will read on:

“whereby during the clamping action said [409] head will be expanded and moved forward along the flared end of the tube into intimate contact with the outer surface thereof throughout substantially the entire extent of the flared surface on the sleeve head.”

Now, that last quoted descriptive feature is per se old in the art, to your knowledge, isn't it?

A. Just that last part——

Q. Beginning with the word “whereby,” my point is, and I am asking you, isn't that descriptive statement that I quoted, beginning with the word “whereby,” the same thing that will occur with various other forms of fittings known to you to be

(Testimony of John N. Wolfram.)

in the prior art? A. No, I don't——

Mr. Freeman: Just a minute. I am going to object to that, because you have constantly referred to the term "prior art." The term "prior art" has a very definite meaning, your Honor, in patent cases. They haven't introduced any prior art. If he wants to refer to any of these physical devices or refer to some specific drawing, that is one thing, but when you use the term "prior art," which has a very definite meaning, then he should say what prior art he is referring to.

Mr. Huebner: I am referring to what the witness' own knowledge backs up.

The Court: The witness is an expert. He has testified [410] as to this patent. He has testified as to the claims. Now, you say that the term "prior art" has a——

Mr. Freeman: A definite meaning.

The Court: ——a definite, specific meaning?

Mr. Freeman: Right.

The Court: I have been using the term "in the public domain." That is probably the wrong term to use.

Mr. Huebner: They are synonymous in effect.

The Court: But when I say "in the public domain," I mean in the domain where anybody can use it, nobody has the right to use it exclusively. Let's forget the term used. I would like to know whether the last part is in the public domain or not, if you can answer.

The Witness: No, I don't think that it is be-

(Testimony of John N. Wolfram.)

cause it includes the words "said head." It says, "whereby during the clamping action said head will be expanded and moved forward." It has already been defined, that is, the head has already been defined as being a solid head, and I don't know of any prior art where a solid head engaged the tube, the initial toe contact, and expanded as set forth in this claim.

Q. (By Mr. Huebner): Your point is that the words "said head" must be limited by a reference to the particular kind of head described above in the claim. Now, if you substitute the words "said head" for "a head," so it would read, "whereby during the clamping action a head," or "the head," or [411] "any head," that is used in that kind of combination, "will be expanded and moved forward," and so forth, that descriptive phrase there would apply, wouldn't it, to the public domain subject matter?

A. I think that would depend on how you interpret or define the word "head."

Q. You personally know that there are three-piece fittings in the prior art or public domain, do you not?

A. Yes.

Q. And that those three-piece fittings which are in the public domain include a head with a tapered seat on it, is that right?

A. That is correct.

Q. And that those public domain three-piece fittings include a sleeve with an interior surface that is conical intended to rest down upon a flared end of a tube which fits on the flared end of the body,

(Testimony of John N. Wolfram.)

isn't that right? A. That is correct.

Q. That is all public domain so far. Isn't it also true in the public domain this type fitting includes a nut which can be screwed down on the body and which nut has a clamping shoulder that engages a clamping shoulder on the sleeve and thereby enables the whole thing to be pressed by screwing it up into a tight fitting; isn't that in the public domain? [412] A. Yes.

Q. And in that public domain subject matter, the solid head, as distinguished from a concave head, is also known, isn't it?

A. There are solid head sleeves in the prior art.

Q. So that the solid head, there is nothing new about a solid head on a sleeve, right?

A. Not in itself, that is correct.

Q. Now, when you tighten up the kind of an assembly that you and I have just talked about as being in the public domain, you do expand the sleeve, don't you, that is, it does expand the head of the sleeve?

A. There are prior art couplings in which the sleeve does expand, yes.

Q. And in that type, there is a movement, is there not, a movement forward, along the flared end of the tube, that is to say, a movement of the sleeve head forward along the flared end of the tube? That occurs, doesn't it?

A. That is correct. As you expand, there is a slight movement forward.

Q. And in this public domain subject matter.

(Testimony of John N. Wolfram.)

when you have that kind of a fitting, the kind you are talking about, there is an intimate contact with the outer surface, that is to say, an intimate contact between the outer surface of the flare and the inner surface of the sleeve head [413] throughout substantially the entire extent of the flared surface, isn't there?

A. Yes, sir, both initially and finally.

Q. Now, we come back then to what you say is new. Beginning in the claim with the words "so shaped," it is your point, if I understand you correctly, that the crux of this thing, what Parker has added to the public domain subject matter, is some sort of shaping of the parts that the initial contact of the head with the flared end of the tube is first at the free end of the head. That would be what you would call toe contact, would it?

A. That is what we call toe contact, yes.

Q. All right. So it is the free end of the head that has to touch first, and that touching must occur adjacent the outer end of the flared end of the tube. That is another qualification, isn't it?

A. That is another qualification, yes.

Q. And it is those two qualifications which make up the crux, as far as the claim 1 goes, of what you say Parker added to the public domain?

A. Well, no, because you have got to include with that the definition of the head. This part that you quoted, starting with the words "so shaped," refers to the shaping of the inner surface of a solid head or a sleeve.

(Testimony of John N. Wolfram.)

Q. Yes, but the solid head is not new; that is public [414] domain.

A. Yes, but I don't know of any solid head that had been so shaped.

Q. All right. Then let's isolate this thing. That is the crux, or whatever you may want to call it. I presume it would begin with the words "so shaped" in line 13 in the right-hand column, wouldn't it? I am talking about claim 1, line 13, of the page, in the right-hand column.

A. Yes, that is where the words "so shaped" are.

Q. Now, beginning with the words "so shaped," and down to and including the word "tube," followed by a comma in line 17, will you examine that particular clause? A. Yes.

Q. Correct me if I am wrong, but it is my understanding your opinion is that that phrase characterizes whatever invention Mr. Parker may have contributed.

Mr. Freeman: As to claim 1.

Mr. Huebner: As to claim 1.

The Witness: No. What I said—I think I said it twice—is that it is this quoted paragraph or phrase, taken in combination with some of the preceding language of the claim, particularly the solid head.

Q. (By Mr. Huebner): Well, we will assume that the head they are talking about in this blocked off place is the solid head he has defined. [415]

A. Well, if you include the——

Q. Let's include the solid head.

(Testimony of John N. Wolfram.)

A. The solid head.

Q. The solid head which he talks about, yes. Let's include the solid head that he talks about.

A. Yes.

Q. And if we include the solid head, then this blocked off phrase, beginning with the words "so shaped" and ending with the word "tube," that is the crux of the contribution which you contend Mr. Parker gave?

A. That is the new structure, yes.

Q. All right. Now, in view of that, if the devices charged to infringe don't physically possess that relationship, they wouldn't come within the scope of the claim, would they?

A. Well, if you include with that the range of equivalents, I mean, as I understand it, the claim doesn't have to be read literally. If you are just making a broad statement, I don't think that each word has to be read literally.

Q. Well, let's get down to points here then. What do you interpret the patent to mean when it says in this claim that the initial contact of the head with the flared end of the tube must be adjacent the outer end of the flared end of the tube? What does adjacent the outer end of the [416] flared tube mean?

A. Well, I think in this case what the patent claim is trying to set up in words is that the initial contact is toward the largest diameter end of the flare.

(Testimony of John N. Wolfram.)

Q. How close does it have to be to respond to the patent claim?

A. Well, I don't think that you can define that in terms of inches, as long as you obtain the principle that the patent features.

Q. Look at Fig. 2 of the Parker drawing, and in the illustration there, that initial contact is shown as being very close to the extreme end of the flare on the tube, isn't it?

A. It appears to be about an eighth of an inch back of the end of the flare of the tube.

Q. That is an eighth of an inch, according to the scale of the illustration, right? A. Yes.

Q. Now, if that initial contact between some part of the sleeve and the outer face of the tube, the flare, is back somewhere at the shoulder where the bend begins, that wouldn't respond to this claim, would it?

A. Well, I think that if you had any spacing at all between the point where the flare starts, that is, where the outer surface of the tube starts to enlarge, if you had any [417] spacing at all, you could come within the principle of this patent. [418]

Q. Do you mean to say if the sleeve touches anywhere along the outer surface of the tube flare from the time it begins to bend outwardly, that is within the scope of this language of the claim?

A. I say it could be within the scope of the patent, if the initial contact was at any point that was spaced from the point where the tube starts to enlarge.

(Testimony of John N. Wolfram.)

Q. Well, let's get the drawing in front of both of us where the court can see it. The way the patent refers is to have the initial contact very close to the end of the flare, isn't it?

A. It is about an eighth of an inch from the end, as I said.

Q. In the drawing? A. Yes.

Q. Supposing the initial contact, instead of being just where it is shown in the drawing, is made back here in the recess, would that be within the scope of the patent?

A. Well, as I said, if it was back farther along the flare toward the small end of the flare, it could still be within the patent, yes. You could still have a differential angle from that point backward.

Q. Would you consider that, then, to be adjacent the outer end of the flared end of the tube?

A. I think that you could give it that interpretation, [419] because after all the words are merely trying to express a principle.

Q. All right. I just want your interpretation. So that it really doesn't matter, as far as you read the patent, and claim 1 in particular, it doesn't matter whether this sleeve touches first down here near the end of the flare or back where the flare commences, does it?

A. Well, I think that along with that you must recognize that there are other elements of the claim, and that you have to consider the entire claim.

Q. I know you have to consider it, and I don't mean to shut you off, and I won't. If you want to

(Testimony of John N. Wolfram.)

explain it, all right. But we can confine it and forget about the other elements of the claim for the moment. Your interpretation of this feature of the patent is that it doesn't matter whether the sleeve contacts first out here near the end of the flare, or even back at the base where the flare starts, is that your opinion?

A. No, I wasn't trying to make it as broad as that; I was just trying to say that it could touch initially at some other point and still be within the scope of the entire claim.

Q. Could it touch at some other point and fulfill the spirit of this description, and I am reading the words "adjacent the outer end of the flared end of the tube"? [420] A. I think that it could.

Q. All right. Now, refer back, if you will, to another angle that is talked about in the patent. You can look at Figure 2 of the patent in suit. Is there any dimension in degrees, that is to say any specification in degrees, recited in the patent regarding the angle d, small letter d, with an arrow pointing to a line? That is the angle on the outside of the sleeve head.

A. I don't recall that the patent sets forth a specific angle in the written part of the description.

Q. Well, it doesn't give it on the drawing either, does it? A. Not in degrees.

Q. And it doesn't tell you in the claims what the degree angle is, does it?

A. It doesn't define it in degrees.

Q. Now, as an engineer or an expert in this field,

(Testimony of John N. Wolfram.)

how many degrees would make such an angle?

A. Whatever is necessary to obtain the function or the principle that is involved.

Q. Well, how would you go about finding that out, then?

A. Well, I think the patent states that there is a close clearance or that the sleeve head is so shaped that it will contact in the upper region or the region of the clamping shoulder, and that is spaced in the lower region. And once [421] that principle is brought to light, I think that it wouldn't be too much trouble to determine an angle that would be satisfactory.

Q. If it is so simple, just tell the court briefly how you go about determining what the angle will be.

A. Well, I think that the specific angle could probably best be determined by straightforward engineering analysis, or else experiment, either one.

Q. Would you be able to determine it? Do you have enough knowledge of the principles involved to figure that out?

A. I think if I set about doing it I think that could be determined.

Q. You are a man skilled in the art; how would you determine what that angle should be? Tell the court the line that you would follow in determining what that angle should be.

A. Well, as I mentioned, it could be determined by a stress analysis or by experiment.

Q. Is that your complete answer?

(Testimony of John N. Wolfram.)

A. I think so.

Q. Are there any circumstances under which that angle might be as much as 10 degrees and operate satisfactorily?

A. That depends upon what you are designing for.

Q. I said any circumstances, any fitting embodying these [422] principles, and you can make your own example if you want to, is there any fitting that could be built up out of this patent and use an angle as much as 10 degrees and be within the teaching of the patent?

A. Yes, I think it could.

Q. What is the least angle that could be employed and embody the teaching of the patent?

A. Well, the least angle would be that angle that would still produce the principle that the patent teaches.

Q. Well, in degrees, what is the least possible angle in degrees under any materials that you want to assume that are put into this thing that would work as the patent teaches and be within the scope of the patent subject-matter?

A. Well, that is a very broad question.

Q. Sure. You know a lot about the art.

A. I don't think that there is any specific cut-off point, because you could always hedge another minute or two minutes, perhaps.

Q. Would 1/10 of one degree comply with the teaching of the patent?

(Testimony of John N. Wolfram.)

A. It might if you had the other parts of the fitting proportioned, likewise.

Mr. Huebner: I am ready to go on, but perhaps your Honor wants to take the recess.

The Court: We will take our recess. We will recess for 15 minutes at this time.

(A recess was taken.) [423]

Mr. Huebner: Your Honor, I will at this time offer in evidence the Defendants' Exhibits A through E, both inclusive, which have been previously marked for identification.

The Court: They may be received.

(The documents referred to were received in evidence and marked Defendants' Exhibits A through E.)

Mr. Huebner: And with your Honor's permission, we will withdraw the pencil sketches for the purpose of making photostats.

The Court: You may have the permission.

Q. (By Mr. Huebner): Now, let's look at claim 2 of the Parker patent in suit, Mr. Wolfram, and see if we can find out what your opinion is Mr. Parker contributed to the world so far as is defined in claim 2. I will quote parts of it as we go along.

"In a coupling for tubes having the ends thereof flared, coupling members having threaded engagement with each other, one of said coupling members having a seat associated therewith for engaging the inner flare of the flared end of the tube and the other coupling member having a clamping shoulder and an

(Testimony of John N. Wolfram.)

inner wall, a sleeve surrounding said tube and having a solid head capable of radial expansion during the clamping action, said head being provided with a clamping [424] shoulder against which the shoulder of the coupling member engages and an inner flare surface for engaging the outer flared end of the tube,"

Up to that point, it is public domain, isn't it? In other words, what I have been referring to as art prior to Mr. Parker, and what the court has referred to as public domain? A. Yes.

Q. Now, picking up the language of the claim again,

"said clamping shoulder being spaced a distance back of the inner flare surface,"

That is also in the prior art or public domain, isn't it? A. Yes.

Q. To your personal knowledge? I am basing these questions on your personal knowledge.

A. Yes.

Q. Reading on:

"the outer surface of said head and the said inner wall of the coupling member being so shaped relative to each other that when the sleeve head expands during the clamping action they will contact only in the region of the clamping shoulder,"

Now, is it your opinion that that phrase qualifies the [425] subject matter insofar as Mr. Parker's contribution to the art is concerned?

A. Yes, with the head being a solid head.

(Testimony of John N. Wolfram.)

Q. Well, we already had the solid head, which was part of the prior art. We already had that in the combination, you will recall. Now, let's read more of the claim,

"the remaining portion of the head being free from contact with the coupling member whereby the clamping force of the head against the tube is determined by the spring tension of the metal forming said head."

Now, as far as that last quoted portion goes, you have got in the prior art or public domain, don't you?

A. I am not sure. I don't know of any prior art, I can't think of any at the moment, where there is a head which can expand and have hoop tension and be free from contact at the lower end.

Q. There is a phrase in this blocked off portion reading, "region of the clamping shoulder." What is meant by that?

A. Well, that is the region that we were discussing this morning in connection with the pencil sketches.

Q. Where you drew a little red circle on a sketch? A. Yes. [426]

Q. Are you referring to Figure 1 of Exhibit B?

A. Yes, I am.

Q. All right. So that in order to conform to this language, "the region of the clamping shoulder," there must be a contact between the nut and the head of the sleeve not only on the plane horizontal surface of those respective pieces, but also

(Testimony of John N. Wolfram.)

part way down the side on the circumferential surface, that is your testimony?

A. No, I didn't say that it had to go part way down the side. It could be right at the corner.

Q. And terminate at the corner? A. Yes.

Q. So that if there is a clearance from the corner on down between the inner wall of the nut and the outer wall of the sleeve, I want to repeat that, a clearance from the corner all the way down, that is within the meaning of this language in the claim?

A. Yes, as long as at the corner there is some means for limiting the expansion.

Q. Limiting radial expansion?

A. Yes.

Q. And do you consider that to be essential under the teaching of the patent and in particular this claim, do you?

A. Yes, it is part of the claim.

Q. Well, then, would you say that a physical structure [427] which had all these parts of the claim, except that there was a clearance between the outside of the sleeve head and the inside of the nut, all the way up to the corner, that such a device would not be within the scope of this claim 2?

A. If it did not provide any means at the corner for limiting the expansion.

Q. For limiting radial expansion?

A. Radial expansion.

Q. That is what you mean? A. Yes.

Q. Then it would not come within the scope of this claim? A. Yes, I think so.

(Testimony of John N. Wolfram.)

Q. I meant to raise my voice to suggest a question. What is your answer? A. Yes.

Q. It would not come within the scope of the claim?

A. That's correct, if there is no means for limiting the expansion, even at the corner, then I don't think that the claim would cover it.

Q. All right. Now this phrase "so shaped" in claim 2 enables the shaping for the function described to be either a deformation of the sleeve or a deformation of the nut, or both, doesn't it?

A. I am not sure what you mean by a deformation. It is [428] a formation.

Q. Let us say instead of having straight or plain wall surfaces they are recessed or they are angled, now that angling or recessing can occur either on the sleeve or on the nut, can't it?

A. Yes, in line with those sketches that we made previously.

Q. And those sketches would be included in what you talk about as the range of equivalents under these words "so shaped" in claim 2? A. Yes.

Q. Let's go to claim 3. I am going to read what I think is prior art or public domain, and then we will stop and compare:

"In a coupling for tubes having the ends thereof flared, coupling members having threaded engagement with each other, one of said coupling members having a seat associated therewith adapted to engage the inner face of the flared end of the tube and the other cou-

(Testimony of John N. Wolfram.)

pling member having a clamping shoulder, a sleeve surrounding said tube and having a solid head provided with a shoulder against which the clamping shoulder of the coupling member engages, said head having the inner surface thereof provided with a coniform flare.” [429]

Up to that point it is public domain or prior art, isn't it? A. Yes.

Q. Then we come to a phrase:

“so shaped that the initial contact of the head with the flared end of the tube is at the free end of the head and adjacent the outer end of the flared end of the tube,”

Now, that I presume from your testimony is one of the two crucial features of this claim 3, is that right? A. That's correct.

Q. And go on now and read a little further:

“the outer surface of said head and said inner wall of the coupling member being so shaped relative to each other”

Then it goes on and explains:

“that when the sleeve head expands during the clamping action, the portion of said head contacting with the flared end of the tube is at all times out of contact with the coupling member whereby the clamping face of the head against the tube end is determined by the spring tension of the metal forming said head.”

Now, that last quoted portion is a second crucial feature of this claim 3, isn't it?

A. Yes. [430]

(Testimony of John N. Wolfram.)

Q. And both of the crucial clauses are characterized by the limiting words "so shaped," is that right?

A. Yes, the words "so shaped" are repeated in both of those clauses.

Q. As a matter of fact, the words "so shaped" qualify the crucial features of each one of the three claims of the patent, don't they?

A. Did you say the three claims of the patent?

Mr. Huebner: Perhaps you had better read the question.

(The question was read by the reporter.)

The Witness: That is correct, those terms or words appear in all three claims. [431]

Q. I would like to ask you now what benefit, if any, do you find by providing an angular difference between the outside of the sleeve head and the inside of the nut, rather than merely a straight clearance that goes all the way down the corresponding area?

A. Did you ask what the benefit was?

Q. Yes, if there is a benefit.

A. Well, the shaping of the parts in that manner gives the principle which is disclosed in this patent, that is, of having the three zones which we speak of. It provides the means for limiting the expansion in one zone and for permitting the free expansion in another zone.

Q. You are talking about radial expansion, I presume?

A. Yes.

Q. But in an illustration, such as Exhibit D, I

(Testimony of John N. Wolfram.)

presume you find that does not contain the benefit that you have talked about, because there is no confining radial expansion outwardly in the region of the shoulder?

A. That is one of the reasons. The other reason is that I don't find any expansion in that structure.

Q. Well, all right.

A. I made samples and didn't get expansion.

Q. You made samples of this?

A. Yes, I did. [432]

Q. Have you any with you?

A. I think so.

Q. May we look at them?

Mr. Freeman: Yes, you can. I am wondering if I can't ask the witness to come down and pick up his own props, as long as the defendant is asking us to produce the props that they need.

The Court: Do you want that underlined in the record?

Mr. Freeman: No.

(Witness leaving stand and returning with article.)

Q. (By Mr. Huebner): You hold in your hand an assembly of parts, which you say was made up to exemplify, physically exemplify, Exhibit D?

A. Yes.

Q. May I look at it, please?

The Court: While you are figuring up your next question, I wonder if I can ask one. I would like

(Testimony of John N. Wolfram.)

to ask opposing counsel, can you get a patent upon a fixture which says that fixture is so shaped so that it will produce certain results, without giving any description as to the angle, the size, or anything else?

Mr. Huebner: I say no.

The Court: Well, wait a minute. I am asking Mr. Freeman.

Mr. Freeman: The answer, as far as we are concerned, is [433] yes. In other words, the patents are taken out to teach mankind the benefits or to exemplify the contribution made. The patent must be definite enough so one skilled in the art could take the illustrative drawings, together with the description thereof, and then bring about the end result that the man teaches. A patent is not granted upon a thing that is 20 degrees or 5 degrees and two minutes. It is not granted upon whether a thing is four inches long or eight inches long. It is granted upon a combination of a plurality of parts, each of which performs a function, and collectively they bring about the complete ensemble of the claim. That is what is here involved.

Now, it is our position that when the patentee Parker stated in claim 2, for example, that the parts brought about this end result, so that you would have the portion of the sleeve head adjacent the region of contact, and then had another part where he said that portion of that same sleeve head adjacent the flare was free to expand, then Parker produced and told the world how to make a physi-

(Testimony of John N. Wolfram.)

cal device, and that is all that he is called upon to do.

He says you must get the kind of clearance that will permit the very thing he describes in his patent specifications; in other words, he describes in his patent specifications, starting along with column 2, Fig. 2, you might say starting with line 11, on down to line 59, he speaks about the [434] particular head on the sleeve, the outer surface of the head, he speaks about the spring tension, he speaks about where you have unlimited expansion.

Now, when we talk about unlimited expansion of the lower end of the sleeve, that means unlimited expansion. Of course, you could over-expand that beyond its elastic limits. Then, of course, it just won't work after that. In other words, what Parker told the world is when you want spring tension, you have to stay below the elastic limits of that sleeve. If you go beyond the elastic limits of the sleeve, you no longer have spring tension.

So Parker, in describing his patented structure, discloses and, as clearly as anyone could, describes what he means by the sleeve being so shaped.

The Court: Mr. Freeman, I didn't want you to argue the matter.

Mr. Freeman: And I don't want to argue it either, your Honor.

The Court: I wanted to know whether or not in your opinion anyone could get a patent for a fixture in which he describes the fixture as being so shaped as to produce a certain result.

(Testimony of John N. Wolfram.)

Mr. Freeman: There are many cases——

The Court: You say he can?

Mr. Freeman: Yes. The hydraulic press case, decided [435] by the Supreme Court, is a very good example of that. We are prepared at the proper time, your Honor, to furnish authority for the statement we make.

The Court: I assumed that you were ready.

Mr. Freeman: Yes.

The Court: Mr. Huebner, you disagree, I assume.

Mr. Huebner: I violently disagree.

The Court: And you will produce authorities to support your violent disagreement from the courts?

Mr. Huebner: Yes. I did that in my opening statement. One of the most important cases is the General Electric case. Another recent case discusses the point, even after it has been pared off by the Supreme Court, in Walker vs. Halliburton, which is directly in point.

The language of these claims, I contend, makes them absolutely fatally defective. The patent as to all three claims is invalid almost on its face, if not on its face.

The Court: Mr. Huebner, I suppose you have been engaged, and I know you have been engaged, in the patent business for a good many years and you are perfectly familiar with patents and patent applications. Do you mean to tell me that when you make an application for a patent, you have

(Testimony of John N. Wolfram.)

got to describe the fixture by metes and bounds, by angles, or can you describe it by results?

Mr. Huebner: You can never describe it entirely by results. [436] You must have some structure. If the patent is broad and pioneer in character, your language may be more general as to proportions and dimensions and angles. If the thing you are contributing is in an art that is crowded almost to the point of exhaustion, that is to say, the art is so crowded that what you have done is a minor step, then you are required to give accurate dimensions and angles, and particularly when the angles are critical or crucial, and the action or reaction of the parts is the critical or crucial thing, you have got to give enough information so somebody can take your patent and go to work and build one that will do the job.

The Court: Would it have met your objection if they had included in this patent an angle of 5 degrees?

Mr. Huebner: It would have met some of our objections if they had specified the degree of angle in the two crucial instances which are lacking. Then it would have been simpler for the manufacturer, if he weren't bound by government restrictions, if the patent were clarified as to what the claim is, what the monopoly is, then the independent manufacturer who wants to make something knows what he must avoid to stay outside the boundary of the patent monopoly. That is the very purpose of requiring conciseness and accuracy and certainty in

(Testimony of John N. Wolfram.)

not only the patent description but in the patent claims. [437]

The Court: Now may I ask you another question? I assume that the diagrams of the patent are just as much a part of the patent as the words of the patent, is that correct?

Mr. Huebner: I never balanced their worth, your Honor, but one is taken with the other, one supplements the other.

The Court: One supplements the other, that's right. So if someone could take the diagram, if they couldn't understand the language, if they could take the diagram and figure it out, would that be sufficient?

Mr. Huebner: In some cases it might. I will tell you, it might be sufficient, your Honor, as far as the descriptive part of the specification goes, but it is never sufficient so far as the claims are concerned, and the claims have to be considered and construed separately from the description. Even if you took the drawings, your Honor, and by looking at the drawings and looking at the general language of the description, you could tell what you had to do to make one of these things work, and then you come down to the claims which are characterized, depend entirely for their validity, if they are valid, on a phrase "so shaped," the patent is nevertheless invalid for uncertainty under Section 4888 of the Revised Statutes, because the claims must properly and accurately and unambiguously define the invention. So that there are metes and

(Testimony of John N. Wolfram.)

bounds within which the man has his monopoly and outside of which the public is free to take over. [438]

The Court: You don't think an engineer could look at Figure 2 and figure out the degree of angle, d for instance?

Mr. Huebner: He might be able to figure out approximately what this angle is, but he couldn't necessarily figure it out from these lines, because the lines are thick enough that in small sizes a few thousandths of an inch one way or the other might make a lot of difference. It might even be the difference between infringement and non-infringement. And some of these lines are more than a thousandth of an inch wide.

The Court: They haven't attempted to limit the angle in any way, they haven't said an angle of five degrees or ten degrees or fifteen degrees, they have just said an angle.

Mr. Huebner: That is right, and that is one reason——

The Court: They are including all angles.

Mr. Huebner: Apparently they are.

The Court: Let's assume, for instance, that this is the first time that anyone ever thought of putting an angle, designated "d" on Figure 2, on the head of the sleeve, do you think they could get a patent on that?

Mr. Huebner: I think it only involves mechanical skill, and that if a clearance is desired, the obvious thing for a mechanic skilled in the field is

(Testimony of John N. Wolfram.)

to either make a straight cut-off section, which gives you clearance, or if you don't want it clear all the way down, cut it at an angle. It is [439] obvious.

The Court: Let's assume from time immemorial people had been making these fittings and they had been making the head of the sleeve so that it would snugly fit, there was no angle at all, it would just snugly fit——

Mr. Huebner: No clearance?

The Court: No clearance.

Mr. Huebner: Contact metal to metal?

The Court (Continuing): ——then somebody thought of the idea, maybe if we put an angle in there so it would not contact they would make a better fitting, and they experimented and found it was true that by putting a little angle there they made a better fitting; could they get a patent upon that?

Mr. Huebner: Under those facts, your Honor, they might have a good patent. That is, the person who did that might have a good patent.

That would be a rather rare situation where nobody in the art over all the years had ever discovered the advantage of a clearance in there, and suddenly a man comes along and for the first time it has ever occurred he puts in an angle and makes a clearance, that might be a patentable invention.

The Court: Well, was this the first time in this patent that there was an angle put in, "d"?

Mr. Huebner: It probably was the first time

(Testimony of John N. Wolfram.)

that an angle [440] was put so that it is initially an angle. It is not the first time there has been a clearance in there. There are lots of examples which show a clearance. And one of our points is that there is no advantage in an angle over an ordinary clearance. In fact, we don't think that it has as good a co-operation as where you have a straight clearance all the way down.

The Court: Supposing, for instance, from time immemorial they had been working on these fittings, and they had made the fitting snug, so that there was contact between the head and the bolt or the nut, and then somebody had experimented and they left, say, an eighth of an inch clearance all the way up, but it didn't produce an entirely satisfactory fitting, and someone came along and said, "We have tried it snug, contact to contact, metal to metal, and we have tried it with a separation in there, now I wonder what would happen if we put an angle there, attach it at the top and leave it open at the bottom," and they tried it and it worked?

Mr. Huebner: On your example, your Honor, that might be patentable invention. Just taking your example as you have given it, and I don't want to confuse it with a lot of ifs and ands at this point.

The Court: It has to be very simple if I understand it.

Mr. Huebner: There is more to this case, how-

(Testimony of John N. Wolfram.)

ever, than just that example. That is one step in the logic. [441]

The Court: I know, but I can't digest all the case at one time. If I can digest one point at a time, maybe we can sum this up.

Now, are you willing to admit that as far as you know this patent is the first patent in which the angle was used? You say there have been other patents in the prior art, or in the public domain, that had a space between the collar and the nut?

Mr. Huebner: That is the sleeve and the nut.

The Court: The collar of the sleeve and the nut. But this is the first time, if I understand correctly, that this question of an angle has been used.

Mr. Huebner: As far as I know, the art, your Honor, this is the first disclosure of an angle of this character initially present between the outside of the sleeve head and the inside of the nut.

The Court: Well, excuse me for breaking in. I wanted to clarify that situation.

Mr. Huebner: That is all right. There is more to it, though, that will develop.

The Court: Opposing counsel tells me that there is more to it than just that one thing.

Mr. Huebner: One of Mr. Parker's earlier patents, I don't know whether it is in evidence or not, I will look, No. 1,977,240, showed an angle which was very apparent in [442] Figure 5. I don't know whether I am getting ahead of the evidence or not.

Mr. Freeman: I think you are a little bit ahead of it. I have no objection.

(Testimony of John N. Wolfram.)

Mr. Huebner: I tried to answer the court's question. There is an angle shown in one of Mr. Parker's own patents, and I better not say any more about it yet, because the patent isn't in evidence. It is No. 1,977,240.

Mr. Lyon: It is Exhibit 26.

Mr. Huebner: Then Mr. Freeman and I are both wrong. Exhibit 26.

If your Honor will look at Figure 5 you will see an angle there. Of course that will require some discussion and explanation, I assume, at a subsequent point of the trial. Now, that is prior art, the one you are looking at. Exhibit 26 is part of the prior art.

The Court: From the diagram it looks as if there is an angle. Whether there is, or not, I don't know. But it certainly looks like it.

Mr. Huebner: There is just as much of an angle shown in the drawing on that patent as there is shown in the patent in suit, and the patent in suit doesn't tell how much of an angle. It just says an angle. But there is an earlier showing, and that is why I wanted to qualify my answer to your Honor. [443]

Q. (By Mr. Huebner): On this subject of angle, I would like you to look, Mr. Wolfram on your own illustrated drawing in the collection of drawings Exhibit 28, and the particular one I suggest for your attention is Exhibit 28-Q. Do you have it convenient? A. Yes, I do.

Q. This drawing I think you prepared to illus-

(Testimony of John N. Wolfram.)

trate the angle that has been the subject of our recent conversation, "permits maximum shoulder contact," is that an important feature?

A. Yes.

Q. This drawing, however, illustrates a clearance at the upper end of the sleeve shoulder so that there is a space between the outside circumferential surface of the shoulder and inside of the nut. Is that a correct showing?

A. Yes, that is correct, in this view.

Q. What is it in this drawing or in the device represented by this drawing which performs the function you talked about a while ago, namely, that of confining the expansion of the sleeve head in the region of the shoulder?

A. It would be any point of contact which is established when the sleeve head expands.

Q. Well, it doesn't show, then, in this drawing, does it?

A. No. This drawing was made practically free-hand [444] for illustrative purposes, and it doesn't actually show a contact point. I might also say that this drawing shows the parts in their initial finger tight condition.

Q. How do you know that there is a radial expansion of the sleeve in the region of the shoulder?

A. Well, you can observe it from samples.

Q. Do you mean you have made measurements?

A. We have the cut-away samples where you can see the expansion.

Q. Have you ever made measurements?

(Testimony of John N. Wolfram.)

A. Not measurements at that point, no.

Q. In other words, have you, to clear it up in my mind and perhaps in the court's mind, have you ever taken three of these pieces that go together to make up a fitting on the end of a flared tube and measured the outside diameter of the shoulder of the sleeve before it is tightened up, and then measured it again afterwards to see if there was any difference?

A. I have at the lower end of the sleeve.

Q. My question was at the upper end, at the shoulder end.

A. No.

Q. You have not done that?

A. No. [445]

Q. Then your statement that there is a radial expansion in the shoulder end of the sleeve is based upon your theory as an engineer, is that right?

A. No. I say you can see it in the samples.

Q. What sample? Will you pick one out where you can see that?

The Court: Maybe I don't understand your term "expansion." I thought expansion was the blowing up and extending out.

Mr. Huebner: That is one meaning of it.

The Court: Is that what you are talking about here?

Mr. Huebner: In this particular case, we are talking about radial expansion. Maybe I can point it out on this drawing, Exhibit 28-Q. When I say radial expansion, I talk about expansion in this way, the horizontal direction on the drawing only.

(Testimony of John N. Wolfram.)

A general expansion, as you say, would be in all directions.

The Court: Yes. You mean by an expansion, then, a pushing out?

Mr. Huebner: A pushing out of the surface at the shoulder radially outwards as distinguished from this direction or distinguished from that direction.

The Court: In the light of that explanation, I would like to ask the witness a question.

Mr. Huebner: Yes, sir. [446]

The Court: Do you mean to tell me you can tell whether there has been expansion by just looking at these fittings?

The Witness: Well, I have an example here, your Honor, where you can see that the corner of the sleeve is out into contact at the upper end of the sleeve.

The Court: Well, is that why you say there is an expansion? Will you point out to me where you say there is an expansion?

The Witness: I am saying that at the portion of the sleeve adjacent the shoulder, the sleeve head is out into contact with the wall of the nut. At the same time, you can observe that it is still out of contact at the bottom end of the sleeve.

The Court: Well, does that indicate there has been an expansion, or does it indicate that when you have taken the nut and tightened it down, that there has been a tendency of these two parts to get closer together?

(Testimony of John N. Wolfram.)

The Witness: Yes. When you tighten the fitting, the two parts tend to get closer together.

The Court: What I am asking you is, can you take a fitting this size, and this is a large fitting, and just by looking at it observe that there has been an expansion?

The Witness: Well, in this particular fitting I know that when we started out, the sleeve head was smaller at that end and was not out to a diameter large enough to engage the [447] outside wall of the nut.

The Court: You are drawing your conclusion from the results obtained rather than from the observation.

The Witness: Well, I observed the parts beforehand and then after assembly.

The Court: I am glad you are an expert, because I certainly can't see it. That is beyond me.

Q. (By Mr. Huebner): The court's questions to you were upon exhibiting Plaintiff's Exhibit 36, is that right? A. That is correct.

Q. Before you assembled the parts of this exhibit 36, did you make any physical measurements of the dimensions?

A. May I look at the fitting?

Q. Yes. A. Yes, I did.

Q. What did you measure the diameter across the shoulder of the sleeve?

A. What did I measure the diameter?

Q. I say, did you measure the diameter across the shoulder of the sleeve? A. Yes.

(Testimony of John N. Wolfram.)

Q. What was that dimension?

A. I would have to refer to notes to give you the exact figure.

Q. Well, do you have them handy? [448]

A. I am not sure that we have them in court.

Mr. Freeman: We have got them.

Mr. Huebner: All right, if you please.

The Court: May I ask a question? You say you measured it before. Did you measure it afterwards?

The Witness: Well, your Honor, you can't very well measure it——

The Court: Afterwards?

The Witness: ——afterwards; not that accurately. That is a measurement in thousandths of an inch. You could lay a ruler across there——

The Court: I know we are getting down into very small distances.

The Witness: That is correct.

The Court: Well, I don't think, Mr. Freeman, you will have to dig those up this afternoon. It is 4:00 o'clock. Maybe in the light of your questions, they will have these for you in the morning.

Mr. Huebner: I hope so, your Honor.

The Court: I was interested in finding out if it was measured before, if there was a way of measuring it afterwards.

Mr. Huebner: That is a thing that should be determined.

The Court: Of course, as the witness says, we are dealing in very small distances, and it really

(Testimony of John N. Wolfram.)

takes a microscope to understand these [449] distances.

Mr. Huebner: Yes.

The Court: Well, we will recess now until 10:00 o'clock in the morning.

(Whereupon, at 4:00 o'clock p.m., an adjournment was taken until 10:00 o'clock a.m., Wednesday, June 21, 1950.) [450]



No. 12848

United States
Court of Appeals
For the Ninth Circuit.

THE PARKER APPLIANCE COMPANY, a Corporation,

Appellant,

vs.

IRVIN W. MASTERS, INC., and JOSEPH C. COLLINS, Doing Business Under the Firm Name and Style of Collins Engineering Company,

Appellee.

Transcript of Record
IN FOUR VOLUMES
Volume II
(Pages 467 to 924)

Appeal from the United States District Court,
Southern District of California
Central Division.



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Appeal from the United States District Court,
Southern District of California
Central Division.

June 21, 1950—10:00 o'Clock A.M.

The Clerk: Further trial, Parker vs. Masters and Collins.

Mr. Huebner: Shall we proceed, your Honor?

The Court: Yes, you may proceed.

JOHN N. WOLFRAM

the witness on the stand at the time of adjournment, being heretofore duly sworn, resumed the stand and testified further as follows:

Cross-Examination
(Continued)

By Mr. Huebner:

Q. Mr. Wolfram, at the close of yesterday's court session, you were asked to produce some notes that you made regarding physical measurements of the dimensions of Exhibit 36. Were you able to locate those? A. Yes. I have them here.

Q. Referring to your notes and to Exhibit 36, which is the cut-away specimen, will you please state to the court what you found the measurement to be across the largest diameter in the area of the shoulder of the sleeve, that is, prior to assembling the fitting?

A. The largest diameter of the sleeve head, that is the diameter adjacent the shoulder of the sleeve on this particular sample, was 1.7845 inches before assembly. [452]

(Testimony of John N. Wolfram.)

Q. By what instrument did you make that measurement?

A. That was made with a micrometer.

Q. Would you explain to the court the physical shape of that micrometer so the court knows what it was you used?

The Court: I know what a micrometer is.

Mr. Huebner: All right. Then it won't be necessary to pursue the question.

The Court: I don't think so, unless you think the judges in the upper court don't know what a micrometer is.

Mr. Huebner: I think, perhaps, if it should become necessary, we can show one.

Q. I believe you said yesterday that you did not take a measurement of the same diameter, that is to say, the same diametrical region after the parts were assembled and tightened, is that right?

A. That is correct.

Q. The way the exhibit is cut away, would it be possible at this time to make a measurement across the diameter of the shoulder?

A. I haven't quite figured out how it would be possible to make a very accurate measurement at that point.

Q. Yesterday, I believe you were depending upon visual inspection as a basis for a statement that the sleeve head radially expanded due to tightening. That is right, isn't it? [453]

A. That is correct.

Q. Now, how much would you say, from your

(Testimony of John N. Wolfram.)

visual inspection, that diameter had increased due to the so-called radial expansion?

A. Well, the diameter of the sleeve head appears to have increased just about the same as the initial clearance that had existed between the sleeve head and the nut. I say just about because it appears that the corner of the sleeve at the shoulder bears somewhat upon the slight fillet radius in the nut, and it may not have expanded the full amount of the initial clearance, because the fillet itself may have prevented that full amount of expansion.

Q. Well, based on your estimate from the visual observation of that exhibit, what was that clearance, which you say has just about been used up, and state it to the court in thousandths of an inch?

A. Well, from my measurement, the initial clearance seems to have been 7/1000ths of an inch in the diameter, or $3\frac{1}{2}$ /1000ths of an inch on the side.

Q. How did you determine that originally? By measurements?

A. I have another sheet here which lists the initial inside diameter of the nut.

Q. Well, was that figure taken by your personal measurement or from an AN standard sheet? [454]

A. No. This was taken from a measurement under my direction.

Q. And what instrument was used to measure the internal diameter of the nut?

A. That instrument was a plug gauge, and the

(Testimony of John N. Wolfram.)

plug gauges that were available, I believe, were graduated in half-thousandths, so that this measurement that I have here would be correct within a half-thousandth. [455]

Q. All right. Now, I believe you said yesterday that there was expansion due to the tightening at what you may call the nose of the head of the sleeve? A. Yes.

Q. Did you make any measurement of that?

A. Not on this sample.

Q. Did you make any measurement of expansion anywhere on the sleeve head?

A. No, I made no physical measurements of this sleeve head after it had been assembled.

Q. From your visual observation will you state to the court approximately how much radial expansion there appears to have been halfway down the head of the sleeve, and also at the nose or extreme end of the sleeve?

A. I can't say just what the radial expansion has been at the other points of the sleeve.

Q. All right. That is because it is impossible to determine it merely from inspection?

A. It is impossible to determine an accurate figure of that kind just from visual inspection.

Q. Is it possible to determine an approximate figure?

A. It might be. I haven't figured that out.

Q. You can't, without taking time out to really study it, you can't by just looking at this Exhibit

(Testimony of John N. Wolfram.)

36 state to the court what you think that expansion might be? [456]

A. At the lower end of the sleeve you are referring to?

Q. In the two regions, halfway down and at the lower end. A. That's correct.

Q. Yesterday we had some conversation about one of your illustrative drawings. I will refer to your drawing and I will identify the exhibit number in a moment.

Mr. Freeman: It was Exhibit 28-Q.

Q. (By Mr. Huebner): 28-Q, where you illustrate your idea as to the advantage obtained, or at least one of the advantages obtained by having a taper on a sleeve head. Do you have that before you? A. Yes, I have.

Q. According to this, I believe it is your theory or opinion that having an angle on the sleeve head gives you maximum shoulder contact between the shoulder on the nut and the shoulder on the sleeve, is that right? A. That's right.

Q. And you illustrate there a fillet, an annular fillet in the interior surface corner of the nut, don't you? A. Yes, I do.

Q. Will you tell the court what a fillet is?

A. A fillet is a rounding off of an inside corner between two surfaces that are at an angle to each other. [457]

Mr. Freeman: Will you point that out to the court on the chart, please?

The Witness: Your Honor, this is the radius or

(Testimony of John N. Wolfram.)

curve which we refer to as the fillet (indicating).

Q. (By Mr. Huebner): It is because of that fillet, I assume, that there is a bevel on the corner of the sleeve head?

A. Well, that is not the only reason. That is one reason, yes.

Q. Will you point out the beveled corner of the sleeve head to the court, on that drawing?

A. That is this angular line which takes the sharp corner off the edge of the sleeve head.

Q. The removal of that material furnishing a relief is necessary in order for the two parts to fit together, isn't it? A. On both parts?

Q. Well, if you have a fillet on the inside of the nut, then you have to have relief in some form, and that form of a bevel is satisfactory for the parts to properly fit together, isn't that so?

A. That is so if the diameter of your sleeve would otherwise project into the area of the fillet.

Q. And the portion of the sleeve head which is beveled furnishes no bearing surface for contact with the nut for [458] endwise thrust, does it?

A. That's correct, the nut does not contact the beveled part of the sleeve for endwise thrust.

Q. Then the material in the sleeve head representing a somewhat pie-shaped or triangular segment, bounded on one side by your broken line, and on the other side by the outside line of the sleeve head, is excess material, is it not, so far as end thrust is concerned between the nut and the sleeve head?

(Testimony of John N. Wolfram.)

A. This dotted line to which you have referred is not a projection of the corner of the beveled surface which intersects the horizontal surface, so that your statement is not quite correct.

Q. Let's assume that dotted line, broken line—I will ask it this way: What is the broken line for the way you set it up?

A. The broken line is a projection from the diameter of the sleeve at the lower end of the sleeve.

Q. It is a projection of what?

A. It is a projection of that diametrical dimension in a plane parallel with the side wall of the nut. [459]

Q. Well, that broken line terminates—if it were extended, it would terminate at its upper end approximately at the point where a bevel on the sleeve head begins, wouldn't it?

A. As shown in this non-dimension drawing, it would, yes.

Q. It is your drawing. Is there anything wrong with it, as far as dimensions go?

A. This drawing was not made from dimensions. It was just an illustrative drawing made practically free-hand, as I said, to illustrate a point.

Q. Let's take it for what it shows, what it is, and assume that we may regard this pie-shaped or triangular-shaped segment that I talked about before, bounded on one side by the broken line, if extended on through, and on the other side by the outside line of the sleeve head. Now, that pie-shaped segment, as I have described it, and I ask

(Testimony of John N. Wolfram.)

you to assume it thus exists for the purpose of this question, does not perform any function, does it, so far as concerns end thrust by the nut against the sleeve head?

A. Well, if you make that assumption, then——

Q. Then I am correct, am I not?

A. That is correct, that it does not bear against the nut and does not take direct end thrust. It receives motion, of course, from the remaining portion of the sleeve, which is [460] in bearing contact.

Q. It receives motion just like a passenger riding on the running board of an old-fashioned automobile would receive motion, isn't that right?

A. Except here the connection is integral.

Q. Then do I understand that the only purpose you ascribe to that extra material on the outside of the sleeve head is for the purpose of having contact between the sleeve head at its shoulder and the adjacent inside surface of the nut?

A. The angle has been formed so as to provide a means for limiting expansion at the upper end. That statement is correct.

Q. When you say limits expansion, do you mean there must be actual physical contact between that outside circumferential surface of the sleeve head and the inside of the nut?

A. Well, either at the straight wall of the nut or in the fillet of the nut.

Q. Would you refer to another Parker patent, which is in evidence as Exhibit 26? It is Parker 1,977,240. That one, you will recall, is referred to

(Testimony of John N. Wolfram.)

in the patent in suit, and the patent in suit characterizes it as being an improvement over an older patent. The earlier patent, 1,977,240, is for a tube coupling, isn't it? [461]

A. I do not have a copy before me.

Q. I will get one out. I will loan you this copy, and the court, I believe, has the exhibit.

I assume you are familiar with this patent, Exhibit 26?

A. I am familiar with it, although I have not read it in close detail lately.

Q. Well, can you tell by examination of the drawing what it is and thereby refresh your recollection? You can just answer that question yes or no, if it is possible.

A. Yes, I think I am fairly familiar with this patent.

Q. Will you please explain to the court what differences, if any, there are between the early patent, Exhibit 26, and the patent in suit?

A. Well, the patent 1,977,240 embodies several principles. Fig. 1 in this patent—or I should say Fig. 3 in this patent illustrates the initial or finger-tight position of the parts, and you will note that the outside wall of the sleeve head is parallel with the wall of the nut, and that the shoulder on the sleeve, the shoulder 12 on the sleeve, is in a horizontal plane; whereas the shoulder 13 in the nut is at a slight incline so that it will initially contact the shoulder of the sleeve at the outer diameter of the sleeve head. Then as the coupling is tightened up,

(Testimony of John N. Wolfram.)

the outer contact [462] at the sleeve head, which I just mentioned, causes the sleeve head to swing inward to assume the position shown in Fig. 5, for example, so that the entire head of the sleeve has been swung inward in just the opposite direction from that shown or described in the Parker patent 2,212,183. [463]

Q. In other words, instead of expansion of the sleeve head, it is your view that there is a contraction of the sleeve head?

A. Yes, that is how I remember this patent.

Q. Do you think it would work the way it is explained?

A. I don't know. I never saw a physical embodiment.

Q. Do you know whether the Parker Appliance Company ever manufactured any couplings or fittings in conformity to this patent?

Mr. Freeman: He already answered that, that he never saw one.

Mr. Huebner: He said he never saw one, but he may know whether they manufactured that.

The Witness: To my knowledge they never manufactured them, and I am sure that they did not.

Q. (By Mr. Huebner): All right. Do you think it is a good structure?

A. Well, that would remain to be seen, I suppose, by experiment and application to a particular job.

Q. I am only asking for your thought, your

(Testimony of John N. Wolfram.)

view as an expert. Do you think that this would be a satisfactory structure that is illustrated in Parker patent Exhibit 26?

A. I think that answer would depend on what you are designing for and what you are looking for.

Q. Well, you are looking for a fitting that will seal [464] a flared tube onto a body, aren't you? In any of these, isn't that the major purpose?

A. That is the major purpose, yes.

Q. Would this work satisfactorily or wouldn't it?

A. I don't think I can answer that.

Q. All right. Now let's turn to the other early Parker patent, 1,893,442, which is in evidence as Exhibit 25 and is referred to in the patent in suit. Do you have a copy of that early one? I will give you one if you haven't.

A. No, I don't have one here.

Q. Mr. Wolfram, are you familiar with Exhibit 25?

A. I am generally familiar with it.

Q. You are aware, of course, that it is referred to in the patent in suit? A. Yes.

Q. All right. What is the difference or differences, if any, between Exhibit 25 and the patent in suit?

A. One of the major differences is that in this patent it is contemplated that the sleeve head will expand, including its lower end, and expand into contact with the wall of the nut, and then will be backed up solidly by the nut.

(Testimony of John N. Wolfram.)

Q. That is the only difference worth noting, is it?

A. Well, this patent does not contemplate the initial toe contact as set out in the patent 2,212,183.

Q. Do I recall correctly that you testified earlier in [465] the trial that this patent Exhibit 25 is the one under which the AC-811 series of fittings were manufactured?

A. Prior to about 1939 or '40, yes.

Q. And subsequent to 1939 or '40, is it your testimony that the AC-811 fittings did not embody the teachings of the patent, Exhibit 25?

A. No; I testified that they embodied the feature of the 2,212,183.

Q. Then, the AC-811 fittings now, that is, since 1939 or '40, no longer embody any of the teachings of the early patent Exhibit 25?

A. I don't know whether you can say any of the teachings. It embodies the new features or new teaching of the 2,212,183 patent.

Q. Well, taking this Exhibit 25 on its face, can a satisfactory fitting be manufactured pursuant to that patent?

A. You can make a satisfactory fitting, but it won't be as good as the fitting of 2,212,183.

Q. A good many fittings were, however, manufactured under Exhibit 25, weren't they?

A. Yes.

Q. And put into general use? A. Yes.

Q. Some discussion was had concerning the use of lead tubes in fittings of this character. It is true,

(Testimony of John N. Wolfram.)

is it not, [466] that the Parker fittings made under the patent in suit are adaptable for coupling a flared lead tube to a body?

A. No, I don't think so.

Q. Would any of the fittings made by Parker Appliance Company, prior to the grant of the patent in suit, which was in 1940, be suitable for coupling flared lead tubes to bodies?

A. I can't think of any. None that I know of.

Q. You are aware, are you not, that Parker's catalogues or advertising literature recommend that their fittings are suitable for coupling lead tubes?

A. No, I am not aware of that fact.

Mr. Huebner: I don't want to hold court up. I have some of it in my notebook. I didn't know I would have to look for it, or I would have had it out.

I will ask the clerk to mark for identification a three-page printed leaflet or circular bearing the name "Parker Appliance Company, Cleveland, Ohio," and identified in the following respective order: Dimension sheet No. 1601, dimension sheet No. 1600-A, and dimension sheet No. 1600.

Mr. Freeman: Is that dated so that I will have some further identification?

Mr. Huebner: It is dated as issued January 1, 1933. [467]

Mr. Freeman: I object to that as absolutely immaterial as to what Parker may have sold in 1933, or what he advertised in 1933. We are not interested in that. This application was filed, if my

(Testimony of John N. Wolfram.)

memory serves me correctly, in 1938, and we are dealing with the fittings of the present time. I ask them, if they want to produce any literature, I want them to produce literature with respect to Parker's advertisement that the patent in suit be adapted and applicable for use with lead fittings.

The Court: Mr. Freeman, although I might agree with you, I think counsel has a right to have this marked for identification.

Mr. Freeman: I have no objection to that.

The Court: That's all in the world he has asked so far. You are anticipating.

Mr. Freeman: I may be a little premature, your Honor.

The Court: I think you are anticipating.

The Clerk: Exhibit F for the defendants for identification.

(The document referred to was marked Defendants' Exhibit F for identification.)

Q. (By Mr. Huebner): I would like to direct your attention to the drawings in Exhibit F for identification, and ask you whether you recognize the subject matter of those drawings. There are two or three of them. [468]

Mr. Freeman: You don't have a photostat of this?

Mr. Huebner: No. I did not know we were going to have to use it, so I did not photostat it.

Q. Are you able to answer that yes or no?

A. Yes. This exhibit——

Mr. Freeman: For identification.

(Testimony of John N. Wolfram.)

A. —for identification, F, illustrates the Parker triple type fitting as manufactured in 1933.

Q. (By Mr. Huebner): Now, would you say that that fitting is suitable for coupling flared lead tube to a body?

A. To my experience, I would say no.

Q. Would your answer still be no if I directed your attention to the language on dimension sheet No. 1600 of this exhibit, which I will read as follows: This paragraph is in the lower right-hand corner.

“Parker triple fittings are incomparable for joining aluminum alloy, lead, or similar soft tubing.”

A. My answer would still be no, yes.

Q. Were you with the Parker Appliance Company on January 1, 1933?

A. Yes. That was when I was there about a month and a half.

Mr. Huebner: Mr. Freeman, is there any question that these three sheets, Exhibit F for identification, are publications authorized by Parker Appliance Company? [469]

Mr. Freeman: I certainly admit that they were put out by the Parker Appliance Company, and any literature you present bearing the Parker name on it, as far as I am concerned, we will agree now it was put out by the Parker Appliance Company.

Mr. Huebner: I offer Exhibit F in evidence.

Mr. Freeman: I now object to the offer on the basis that it is immaterial. It deals with something

(Testimony of John N. Wolfram.)

not here involved and something that has transpired six or seven years prior to the advent of the Parker patent in suit.

The Court: Sustained.

Mr. Huebner: I would like to have marked for identification——

Mr. Freeman: If it has Parker's name on it, there is no question about it.

Mr. Huebner: ——a catalog entitled "Parker Tube Couplings and Associated Equipment, Bulletin No. 37," and the date of this is 1934.

The Clerk: Exhibit G for identification.

The Court: 1934?

Mr. Huebner: Yes, your Honor, 1934.

(The catalog referred to was marked Defendants' Exhibit G for identification.)

Q. (By Mr. Huebner): Would your answer to the question as to whether Parker fittings are suitable for coupling flared [470] lead tube to bodies be any different if I called your attention to the following language on page 42 of Exhibit G for identification:

"Parker triple couplings are incomparable for joining aluminum alloy, lead or similar soft tubing."

A. My answer would be the same.

Q. And would your answer be the same if I called your attention to the following language on page 63 of Exhibit G for identification:

"Copper tubing, plain and lead-tin coated, and

(Testimony of John N. Wolfram.)

Ambrac metal tubing, are used in the assemblies illustrated.”

A. Yes. That reference to lead and tin-coated means that there is just a very fine coat of lead or tin on the material. The tubing is still substantially a copper tubing.

Mr. Huebner: I offer in evidence, your Honor, Exhibit G for identification.

Mr. Freeman: I am going to make the same objection I made in connection with Exhibit F.

The Court: Same ruling.

Q. (By Mr. Huebner): Mr. Wolfram, are you aware of any problem that confronted the aircraft industry with respect to flared tube fittings prior to the application for the patent in suit, which application was originally filed March 2, [471]

A. No, not directly.

Q. You would not then be able to testify of your own knowledge as to any particular problems that may have been solved by the advent of this patent in suit, would you?

A. No problems which existed before the application date, no.

Mr. Huebner: That concludes our cross-examination.

Redirect Examination

By Mr. Freeman:

Q. Mr. Wolfram, in connection with the use of lead pipe and the couplings of the kind here involved, have you carried on any experiments or

(Testimony of John N. Wolfram.)

have you tried using a lead pipe with a fitting of the kind here involved? A. Yes, I have.

Q. And what was the experience that you ran into?

A. Well, at very low torque, the lead just squashed out from between the fitting surfaces on the sleeve and on the body and moved into the threads of the nut, so that it was very difficult to disassemble the fitting. [472]

Q. And when you say at low torque, you mean a torque much lower than what would normally be required? A. Yes.

Q. And was that the basis of your answers to Mr. Huebner's questions when he read to you from two of the catalogues put out in 1933 and '34 by the Parker Appliance Company?

A. Yes, that's the primary reason, plus the fact that in all the years I have been at Parker I have never seen or heard of an actual sale or installation made with Parker fittings on lead pipe.

Mr. Freeman: I am going to ask the clerk to mark the device I have handed him Plaintiff's Exhibit 60.

(The device referred to was marked Plaintiff's Exhibit 60, for identification.)

Q. (By Mr. Freeman): I hand you some physical members which have been marked for identification Plaintiff's Exhibit 60, and will you tell us just what it is, what you know about it?

A. This is a Parker fitting which I used for con-

(Testimony of John N. Wolfram.)

necting up a piece of lead pipe. I flared the lead pipe in the ordinary manner prior to assembly, inserted it into the sleeve and nut and drew the nut onto the body. During the course of assembly the lead from the flare squashed out into the threads of the nut, and I had a lot of difficulty in disassembling the [473] fitting, and finally worked the lead flare out of the nut by threading it out. But since then I have not been able to reinsert the flare into the nut.

Q. And the condition of Plaintiff's Exhibit 60, for identification, is such now that the fitting would not be usable for reconnecting the lead pipe, is that correct? A. That's right.

Q. Is the lead pipe stuck within the threads of the nut member at the present moment?

A. Yes, it is.

Q. You say that when you disassembled the parts after they were assembled the lead pipe threaded itself out of the nut?

A. That was the only way that I could get the lead pipe out. I tried pushing it out but couldn't move it, so I finally jiggled it and worked it around until I had deformed the lead enough by such action to unfreeze it somewhat and then thread it out of the nut.

Q. When you say "threaded out," you mean by rotating the nut, really, on the tube, on the lead tube? A. That's correct.

Q. So that there was some portion of the flare

(Testimony of John N. Wolfram.)

actually projected into the depth of the thread?

A. That is correct.

Q. Would you say your method of unfreezing, in order to [474] disassemble the fitting from the lead pipe, in an actual installation, would be a practical job?

A. No, it wouldn't. If this was in a close-quarter airplane installation, or any other, it wouldn't even have to be a close-quarter installation, it would be extremely annoying and cumbersome to try and get that apart. In a close-quarter installation it is easily conceivable that you just wouldn't get it apart.

Q. Now that you have threaded it apart it is not in condition to be reused? A. That's correct.

Q. Did you, by any chance, in the unit that you have in your hand, Plaintiff's Exhibit 60, for identification, take any measurements as to whether even with lead there was any expansion of the sleeve?

A. Yes, I did. I measured the diameter of the sleeve at the lower end of the head prior to assembly, and again after it had been assembled, that is, while it was in the wrench tight condition, and I found that the sleeve head had expanded one-thousandth of an inch at the lower end.

Q. Did you measure that with a micrometer?

A. No; that measurement was taken on a comparator, which is more accurate, I think, than a micrometer.

Q. Would you tell the court just what a comparator is?

(Testimony of John N. Wolfram.)

A. A comparator is a machine for making measurements, [475] and it operates on the principle of shining a light across a surface so as to project a magnified image of that surface, I believe the magnification—in fact, I know the magnification was 31 and a quarter times. In making the measurement of the sleeve on the comparator I sighted or threw the shadow of one side of the sleeve and then established the indicator on the machine at zero point, and then moved the instrument by the proper controls so that the light would shine across the opposite face of the sleeve and throw the shadow at that point, and the indicators on the machine then gave you the reading, which represented the distance which you had moved, or in this case the distance across the points of measurement.

Q. When you made up the flare on the lead pipe did you follow the same technique as you follow in connection with the make-up of flare of what we call a hard metal tube for use with the fitting that you have in your hand?

A. Yes, I did. I used the same tools and used the same flare measurement specifications.

Q. Will you point out on the physical unit to the court the location of the lead pipe or the piece of lead, or the flare thereof, within the nut, and what you mean by the sticking within the nut?

A. Your Honor, this gray-colored piece is the tube; it was just a very short piece of lead tubing, and it only [476] extends part way into the sleeve, as you can see here; it is this enlarged part of this

(Testimony of John N. Wolfram.)

gray material which is stuck in the threads of the nut. I may be able to push it out now, but I can't push it back into the nut.

Mr. Freeman: I offer in evidence as Plaintiff's Exhibit 60 the Parker fitting with a piece of lead tubing or pipe therein.

The Court: It will be received.

The Clerk: 60 in evidence.

(The device, heretofore marked Plaintiff's Exhibit 60, for identification, was received in evidence.) [477]

Mr. Freeman: I am going to ask the clerk to mark another physical unit Plaintiff's Exhibit 61 for identification.

The Clerk: 61 for identification.

(The article referred to was marked Plaintiff's Exhibit No. 61 for identification.)

Q. (By Mr. Freeman): I am going to hand you Plaintiff's Exhibit 61 for identification. Will you tell us what it is and whether or not in the physical device that you have there you can thread out the pipe within the nut and, if you can, will you do that so that the court may observe just what you are doing?

A. This is a Parker fitting with a piece of lead pipe. I assembled this fitting in the same manner as the previous fitting which we have been discussing.

Q. Plaintiff's Exhibit 60.

(Testimony of John N. Wolfram.)

A. And found that the same thing had occurred, that the lead flowed out from between the seating surface of the sleeve and the body, and it jammed against the nut wall. When I first took it apart, the lead pipe was frozen into the nut so that I couldn't move it without difficulty. I finally broke it loose by twisting it with my hand so that I could rotate it within the nut, but we cannot push it out directly by end thrust.

I have not tried to thread it out of the nut as I did [478] the other fitting, Exhibit 60. Do you wish me to try to thread it out now?

Q. I would like to have you show that to the court now, if it is possible.

A. You see, your Honor, I have broken it loose. It is quite sticky in here now. In fact, it is at a point now where it is jammed. By putting end thrust on the tubing and rotating it at the same time, I may be able to thread it out in the same manner that I threaded the other one out. I have threaded it part way out. I still can't just slide it out. There, I have threaded it out of the nut.

Q. Now, might you re-insert the lead pipe back into the nut?

A. By pushing pretty hard, I was able to insert it by a straight thrust. It bent the lead, your Honor, a little bit, but I can't get it back out by trying to push it back out. In fact, it caught in the threads again, and the flare is now quite badly distorted. It was a nice uniform flare a moment ago,

(Testimony of John N. Wolfram.)

but you can see now that it has distorted considerably.

Q. I noticed when you were working with Plaintiff's Exhibit 61 for identification, you rotated the lead pipe and held the nut stationary. In actual practice, you wouldn't be in position to really rotate the pipe, would you?

A. No, not ordinarily. [479]

Q. It is true that the pipe may have connection at another end that would prevent rotation or twisting of the pipe?

A. Either connections or bends in the tubing.

Mr. Freeman: I offer in evidence the Parker fitting illustrative with a lead pipe as Plaintiff's Exhibit 61.

The Court: It may be received.

The Clerk: 61.

(The fitting referred to was received in evidence and marked Plaintiff's Exhibit No. 61.)

Q. (By Mr. Freeman): Mr. Huebner asked you for some dimensions or data with respect to Plaintiff's Exhibit 36, and I wish you would hand me the data.

A. (Witness complying.)

Mr. Freeman: I am going to ask the clerk to mark these two sheets for identification Plaintiff's Exhibits 62 and 62-A.

(Testimony of John N. Wolfram.)

(The documents referred to were marked Plaintiff's Exhibits 62 and 62-A for identification.)

Q. (By Mr. Freeman): I am now going to ask you how you connect up the dimensions that you gave Mr. Huebner on cross-examination with Plaintiff's Exhibits 62 and 62-A for identification, and the fitting, Plaintiff's Exhibit 36.

A. On the Exhibit 36, you will note that I have the numeral 4 scratched into the sleeve with a fine line. That numeral 4 corresponds to the sample number which is in both of [480] the sheets, Exhibits 62 and 62-A.

62-A shows the nut, and one column refers to aluminum alloy nuts, and the other column refers to steel nuts. This is a steel fitting, so that the steel chart would apply.

Exhibit 62 shows the sleeve, and again has two charts, and it is sample No. 4 of the steel chart which corresponds to the physical exhibit 36.

Q. And were these charts made up from stock material that you took from the Parker Appliance Company and thereafter had actual measurements of the physical device recorded upon Plaintiff's Exhibits 62 and 62-A for identification?

A. Yes.

Q. So that the recordings that you there made and the measurements that are there indicated are actual measurements, as distinguished from any

(Testimony of John N. Wolfram.)

AN standards with plus or minuses by way of clearance?

A. That is correct. These are actual measurements of the physical part.

Q. And the outside diameter of the sleeve, that is, the greatest diameter adjacent the shoulder, was measured and recorded by you?

A. Not by myself directly, but under my supervision.

Q. Well, all of the work that was done, I recognize you didn't physically cut some of these things apart, but it was all under your supervision and direction? [481]

A. Either that or done personally. In this case, it was under supervision.

Q. And the measurement of the inside of the nut was likewise done under your supervision?

A. That is correct.

Q. And we are now talking about the measurements for Plaintiff's Exhibit 36; correct?

A. That is correct.

Q. I notice on the Plaintiff's Exhibit 62-A, you have a cross section of a portion of the nut; correct? A. That is correct.

Q. And you there have an arrow with a lead line leading to the letter A with a dash, and then "dia." thereafter. What does that refer to?

A. The illustration itself is a quarter section of the nut, and the lead line with the arrowhead and the letter A and the letters dia. indicate that

(Testimony of John N. Wolfram.)

I am trying to represent the inside diameter of the nut.

Q. And the measurements were taken of that portion of the nut against which the arrow is directed?

A. That is correct, and they are recorded in the column of the charts which is headed A. [482]

Q. And, likewise, in connection with Plaintiff's Exhibit 62 I note the letter B with the letters dia thereafter, and also an arrow and a line leading to a figure shown in section. Will you please tell us exactly what that is?

A. The arrow projects to a line which represents an extension of the corner of the sleeve head adjacent the shoulder of the sleeve, and represents, or I should say is a representation of the diameter of that corner. The actual diameters are then listed in the columns marked B in the charts.

Mr. Freeman: It is a few minutes after eleven.

The Court: Well, let's finish with these exhibits if we can.

Mr. Freeman: Very well.

Q. (By Mr. Freeman): Then do I understand that in the device, Plaintiff's Exhibit 36, there was by actual measurement before assembly of the parts a clearance between the upper portion of the sleeve and the inside wall of the nut?

A. That is correct.

Q. And I think you testified on cross-examination that that was some seven-thousandths of an inch?

A. Yes.

(Testimony of John N. Wolfram.)

Q. With three and a half thousandths on each side? A. Yes. [483]

Q. And in the physical device that has been cut, the parts at the shoulder are in engagement with each other, is that correct?

A. That is correct.

Q. And at the lower end of the sleeve or the nose end of the sleeve it is spaced somewhat from the inner wall of the nut, is that correct?

A. That is correct.

Q. And you can visually observe just what you have testified to from an inspection of Plaintiff's Exhibit 36, is that correct? A. Yes.

Mr. Freeman: I now offer in evidence as Plaintiff's Exhibit 62 and 62-A charts indicating measurements, particularly of the sleeve and nut, with respect to Plaintiff's Exhibit 36.

The Court: They may be received.

(The charts, heretofore marked Plaintiff's Exhibits 62 and 62-A, for identification, were received in evidence.)

The Court: Now we will take our morning recess. We will recess until twenty minutes after eleven.

(A recess was taken.)

Q. (By Mr. Freeman): Mr. Wolfram, will you turn to Plaintiff's Exhibit 28-Q, and particularly that reference made [484] by Mr. Huebner with respect to a pie-shaped portion, and I am going

(Testimony of John N. Wolfram.)

to ask you what would happen with respect to bearing surfaces or width of contact between the nut shoulder and the sleeve shoulder if the parts were as illustrated in the dotted line?

A. The width of contact between the shoulders of the nut and the sleeve would be materially reduced. In fact, I calculated it out on one of the sizes, and the reduction would run as much as 24 to 33 per cent.

Q. Mr. Huebner referred to that pie-shaped portion as excess, or as a person riding on the running board of an automobile, and I am going to ask you if you projected the dotted line straight on up would you then have to provide for a cut-off corner as is illustrated on that portion which Mr. Huebner referred to as the excess portion?

A. Yes, you would still have to provide that cut-off portion. It is just standard and accepted machining practice to break off sharp edges that way, unless there is some specific reason for retaining it. But in this case the standard practice for fittings calls for that corner to be broken off so that it is not sharp.

Q. So if you went up parallel with the inside wall of the nut and broke off the corner, you would actually lose bearing surface?

A. Yes, that is correct. [485]

Q. So that what Mr. Huebner failed to take into consideration was the angular broken line from the vertical broken line; correct?

A. Yes, Mr. Huebner did not, apparently, an-

(Testimony of John N. Wolfram.)

ticipate putting that angular broken line onto the sleeve head.

Q. So that, as a matter of fact, by having what has been referred to as the excess material, or the angle on the sleeve, the bearing surface is increased the distance between, as illustrated in your drawing Plaintiff's Exhibit Q, between the two vertical lines marked "Width of contact with angle" and "Width of contact without angle"; correct?

A. Yes.

Q. Will you turn to the 1,893- patent, Plaintiff's Exhibit 25?

The Court: You say 1893?

Mr. Freeman: I just used the four numbers of the patent. Some courts do that.

The Court: I thought you were talking about the year. I was just wondering.

Q. (By Mr. Freeman): You were briefly asked with respect to that patent and wherein it differed from the patent in suit, Plaintiff's Exhibit 1, by Mr. Huebner. I am going to ask you to point out as quickly as you can wherein patent No. 2,212,183, Plaintiff's Exhibit 1, differs from the 1,893-Parker patent, Plaintiff's Exhibit 25. [486]

A. In the 2,212,183 patent, the sleeve head is formed with an angle on its outer surface so that there will be free expansion at the lower end of the sleeve and a limited expansion at the upper end of the sleeve. The Parker patent 1,893,442 does not have such a sleeve head angle and does not contemplate free expansion of the lower end of the

(Testimony of John N. Wolfram.)

sleeve in combination with limited expansion at the upper end of the sleeve. [487]

Q. And the wall of the sleeve of Plaintiff's Exhibit 25 with respect to the wall of the nut is parallel; correct? A. Is 25 the 1,893,442 patent?

Q. Yes. A. Yes.

Q. So that as you begin to tighten up the nut, there is likelihood of contact between the wall of the sleeve and the wall of the nut?

A. Yes. In fact, the patent teaches that there is that contact and that the parts or the sleeve actually becomes firmly wedged against the other so that the sleeve will then react to press the flare against the nose of the fitting and cause yielding of the body seat.

Q. So that you have in the Parker 1,893,442 patent a wedge type action; correct?

A. That is correct.

Q. And in the patent in suit where you have the lower end of the sleeve free from contact with the wall of the nut, you have a gripping tension on the flare of the tube; correct?

A. That is correct. You might call this a sleeve with free suspension, or something of that nature, in that the lower end of the sleeve which engages the flare of the tube is freely suspended within the nut itself. It is not in contact with the nut.

Q. So that gripping action of the sleeve in the Parker [488] 2,212,183 patent is determined by the expansion of the sleeve itself?

(Testimony of John N. Wolfram.)

A. Yes, by the hoop tension resulting from the expansion of the sleeve.

Q. Whereas in the Parker patent 1,893,442, the nut backs up the sleeve, and thereafter the pressure applied to the flare is that of a wedge restricted on one side by the nut and on the other side by the wall of the flare? A. That is correct.

Q. Is there any indication in the 1,893,442 patent of Parker with respect to having what we have referred to here as initial contact between the sleeve and the outside wall of the flare?

A. No. The 1,893,442 patent teaches parallel seats between the sleeve and the body, that is, the sleeve surface 16 is parallel to the body surface 5. The flare itself, being a copper tube or a steel tube, slightly thins out towards its outer diameter so that the inner wall of the flare is not exactly parallel with the—so that the inner wall of the flare is not parallel with the outer wall of the flare. With this result, you would obtain initial contact or compression at the heel of the flare, rather than at the toe end of the flare.

Q. And the Parker patent, Plaintiff's Exhibit 25, No. 1,893,442, was mentioned in the Parker patent in suit in [489] the first paragraph thereof?

A. That is correct.

Q. And likewise Plaintiff's Exhibit 26, which is another Parker patent, No. 1,977,240, was likewise mentioned in the first paragraph of the Parker patent in suit? A. That is correct.

Q. And from that expression in paragraph 1

(Testimony of John N. Wolfram.)

of the Parker patent in suit, can you definitely say that both of the prior patents, Plaintiff's Exhibits 25 and 26, were before the examiner in the Patent Office?

A. They most certainly were. They were expressly pointed out.

Q. In other words, Parker, through his attorneys, called these two patents to the attention of the Patent Office? A. That is correct.

Q. Now, will you turn to Plaintiff's Exhibit 26, which is the second Parker patent, No. 1,977,240, and tell me whether or not there is any initial angle on the sleeve of the flare? I said on the sleeve of the flare. I mean on the sleeve member.

A. No. Fig. 3 illustrates the parts in their initial or finger-tight position, as mentioned in column 1, beginning with line 44. It is there stated:

"Fig. 3 is a view of the coupling members when [490] initially brought into contact with the flared end of the tube, but before said coupling members are drawn together so as to seat and finally clamp the flared end of the tube."

By observation of Fig. 3, it is clearly apparent that the side wall of the sleeve is parallel with the side wall of the nut. [491]

Q. And the Parker patent, Plaintiff's Exhibit 26, illustrates movement inwardly of the sleeve member against the flare; correct?

A. That is correct.

(Testimony of John N. Wolfram.)

Q. And that movement is in the form of an arc or arcuate movement?

A. Yes, when we consider any cross-section through the sleeve it would be an arc.

Q. And is that brought about by the angle on the shoulder of the nut coacting with the corner, if we can call it that, of the sleeve shoulder and the vertical wall of the sleeve itself?

A. Yes, plus the fact that the inside flare surface of the sleeve first contacts the flare at the heel or base of the flare, which is the opposite point of the contact established initially in the 2,212,183 patent. And since this point of contact, which is labeled with the small letter b in Figure 4, is inward of the point of contact between the nut shoulder and the sleeve shoulder a couple is set up which tends to rotate or turn the sleeve head inward.

Q. Then you fail to find in the Parker patent 1,977,240, Plaintiff's Exhibit 26, anything corresponding to the sleeve head angle that we have referred to here in connection with the Parker patent in suit?

A. That is correct, I fail to find that. The teachings [492] of the two patents are entirely different.

Q. And you likewise fail to find anything that we have referred to here in connection with the patent in suit as initial or toe contact?

A. That's correct, I fail to find such contact.

Q. I think it was your testimony that as far as you know in your experience with the Parker Company, starting back early in 1933, that the Parker

(Testimony of John N. Wolfram.)

Company made no commercial devices corresponding to Plaintiff's Exhibit 26?

A. That's correct.

Q. And it is your testimony that prior to 1940 or thereabouts the Parker Company did manufacture fittings corresponding to Plaintiff's Exhibit 25, which is the 1,893,442 patent?

A. That's correct, manufacture started in about 1940.

Q. I am now talking about Plaintiff's Exhibit 25.

A. I am sorry. I was referring to patent No. 2,212,183.

Q. So that the record is clear, your testimony now is that starting about 1940 the Parker Appliance Company began manufacturing structures embodying, well, let's call it the sleeve head angle——

A. That is correct.

Q. ——of the patent in suit.

A. That's correct.

Q. And prior to 1940 the Parker Appliance Company made [493] a fitting that has here been referred to as No. 811 fitting, following closely patent No. 1,893,442, Plaintiff's Exhibit 25?

A. Yes, and with the understanding, of course, that about in 1940 the 811 fitting was changed so as to incorporate the angle of the 2,212,183 patent.

Q. But my statement is still correct, prior to 1940 they followed pretty much the 1,893,442, Plaintiff's Exhibit 25, patent?

A. That's correct.

Q. Thereafter they incorporated the improve-

(Testimony of John N. Wolfram.)

ment of the 2,212,183 into the then existing 811 fitting? A. That is correct.

Q. And thereafter they manufactured the 811 fitting with the embodiment of the sleeve head angle of patent No. 2,212,183? A. That is correct.

Q. Reference was made yesterday to a drawing Defendants' Exhibit D, which I now hand you, and you testified in response to questions by Mr. Huebner that you made a device corresponding to that drawing Defendants' Exhibit D; correct.

A. Yes.

Q. And you furnished Mr. Huebner that particular device; correct? A. Yes. [494]

Q. I am going to ask you briefly if the device that I now hand you, which we will mark Plaintiff's Exhibit 63, for identification, is the device that you referred to when you gave your answers to Mr. Huebner?

(The device referred to was marked Plaintiff's Exhibit No. 63, for identification.)

A. Yes, this is the device.

Q. And in making up that device did you follow as closely as you could the drawing, Defendants' Exhibit D, as well as the rest of the publication which was furnished you by the defendants and referred to by defendants in their answer?

A. Yes, I did, I accurately measured out the illustration and made the fitting accordingly. [495]

Q. And did you put in a piece of lead pipe?

A. Yes, I did.

Q. What was your experience with the fitting,

(Testimony of John N. Wolfram.)

that is, the illustration that you have in your hand with respect to the lead pipe?

A. Upon making the flare in the lead pipe and bringing the parts into finger-tight position, I applied wrench pressure, and the material of the flare squashed out from between the seats again, and flowed into the undercut of a nut, so that the sleeve and the lead flare can now not be removed from the fitting, or from the nut.

Q. I am going to ask you to explain what is illustrated as the body member of the Plaintiff's Exhibit 63 and why you did not put any opening there through. Just explain the physical device you have, which is illustrative.

A. The threaded end of the body member, which is a part of this coupling, has a beveled surface, and this entire end corresponds dimensionally to the drawing, Exhibit D. It also has a hole through it, the same as shown in the drawing, and there is this undercut portion of the bore of the fitting, which lies under the threads. That can be observed by looking into the fitting.

The coupling, as shown in this Exhibit D, is obviously just for illustrative purposes, as far as the body member is concerned, since the body does not have any provision at the [496] end opposite the beveled end for connecting up to another member. I took the liberty, you might say, of adding onto this end of the fitting extra material which could serve as a wrench-gripping means, so that from the hexagon portion of this body member forward to

(Testimony of John N. Wolfram.)

the beveled portion, the fitting corresponds in all respects to the illustration. I did not have the bore drilled completely through the fitting, although it is very deep and goes through as far as the hex, so that the body part has been bored out to the extent shown in the drawing.

Q. So that the angle on the body or the tapered portion, the screw threads on the body, the screw threads on the nut, and the sleeve member, are all relatively as illustrated in Defendants' Exhibit D?

A. Yes. The only concession that might be made there is in the pitch of the threads. I don't recall exactly what the pitch works out to be in the drawing, but I selected a standard pitch thread that was the closest to the pitch of the illustration and, in fact, if I recall correctly, this isn't even a standard one, but they chased one, which made it very close to the pitch illustrated in the drawing.

Q. When you say they chased one, that means they followed it?

A. No. That means that the machinist cut a thread on the lathe with a tool bit, and not with a standard thread-cutting [497] tool, which is termed a chaser. The process of cutting a thread is often referred to as chasing a thread.

Q. I notice that the nut member includes a pair of slots or openings so that you can see the end of the lead pipe; is that correct?

A. That is correct.

Q. And that was likewise put in by you for illustrative purposes?

(Testimony of John N. Wolfram.)

A. Yes. The slots do not appear in Bjorling. I added them for that purpose.

Mr. Freeman: I want to offer the physical device referred to by the witness as Plaintiff's Exhibit 63.

The Court: It may be received.

(The device referred to was received in evidence and marked Plaintiff's Exhibit No. 63.)

Mr. Freeman: That's all, as far as I am concerned, with this witness.

Mr. Huebner: We have a few more questions, your Honor.

The Court: All right. Let's see if we can't finish up by 12:00 o'clock. I don't know what you mean by a few more.

Mr. Huebner: I don't either, until he starts answering.

Mr. Freeman: I kept my promise yesterday morning. I turned him over right away.

Recross-Examination

By Mr. Huebner:

Q. Referring to Exhibit 60, one of [498] your lead illustrations, did you have any particular reason for selecting this size fitting?

A. Yes. There was a practical reason. That was the size lead pipe that I had.

Q. There is a notation on here that you tightened this to 350 pounds torque. Is that what you did do?

A. Yes.

(Testimony of John N. Wolfram.)

Q. What pressure will a lead tube of that size and thickness stand in actual use?

A. I wouldn't know.

Q. What torque was necessary to tighten it so that there would be an effective seal in a coupling such as Exhibit 60, for what use it would be intended?

A. I wouldn't be able to tell that just from one tightening. [499]

Q. Why did you take 350 pounds torque, then, to tighten this up? It is excessive, isn't it?

A. Well, I don't know whether it is or not. I gauged that more or less by the feel of the fitting. After all, you turn a nut down even when you take a threaded bolt, and you tighten it up until you can feel the parts coming home. You develop that feel and know about where to stop.

Q. When you started out to make this experiment, what was your purpose?

A. To see what would happen if I coupled lead pipe with a Parker fitting.

Q. And what is your conclusion did happen?

A. Well, the conclusion is that the lead pipe expanded out into contact with the nut wall and jammed into the threads.

Q. That is at 350 pounds torque?

A. It had jammed before that, too.

Q. At what torque did it first jam?

A. I didn't make a note of that, but I would estimate that it had jammed by about 200 pounds torque.

(Testimony of John N. Wolfram.)

Q. But you aren't sure as to that?

A. No, I didn't make a note of that..

Q. All right. Now, take Exhibit 61; you have got a lead tube in there that is also jammed into the nut, haven't you?

A. That is correct. [500]

Q. At what point did this first jam, that is, what point of wrench torque did this first jam?

A. On that one it had been jammed at 126 inch pounds torque.

Q. All right. How much torque would be required to tighten this particular assembly of parts, Exhibit 61, to make an effective seal with a lead tube?

A. I wouldn't know that specifically or accurately from the one example.

Q. Well, your whole object was to see if you couldn't jam that lead into the threads, wasn't it?

A. No, I don't think that was the whole object. As I said——

Q. Just one of them, perhaps?

A. No. I wanted to see what would happen.

Q. Now, in performing your experiments in connection with the drawing known as Exhibit D, you have it, did you attempt to couple flared aluminum tubing with this physical assembly of parts Exhibit 63?

A. No, I did not.

Q. Why did you make this so heavy as it appears to be?

A. As I said, I followed the drawing as well as I could.

(Testimony of John N. Wolfram.)

Q. What is this hexagonal-headed item here that has on it the number "2"? [501]

A. That, as I explained before, was an extension that I put on to the fitting as illustrated in the drawing for the purpose——

Q. Where would it extend from?

A. From this end opposite the beveled surface. I added that merely to provide a wrench-gripping portion.

Q. And that is not part of the disclosure, is it?

A. No.

Q. Now, as an engineer skilled in this field, if you wanted to take that drawing, Exhibit D, and make a coupling or fitting suitable for use in aircraft, you wouldn't use brass like that, would you?

A. Brass is a material that I believe is no longer used for airplane piping, although it was at one time.

Q. Isn't aluminum or some lighter metal used, unless the strength of steel is required for the particular installation?

A. Yes, aluminum is used wherever it can be. But I can point out that with the aluminum fittings used in aircraft, a sleeve is used which is of a copper base alloy which is known as aluminum bronze or copper silicon, which we might call brass, it is very closely related to brass, it is a brass with a much higher tensile strength than brass.

Q. If you were called upon as an engineer or expert to prepare from that drawing, Exhibit D, a

(Testimony of John N. Wolfram.)

fitting suitable for [502] use in aircraft, you could do it, couldn't you?

A. If I had just this drawing before me I would produce this fitting according to the disclosure.

Q. Now, get that question. Read the question back, Mr. Reporter.

(The question referred to was read by the reporter as follows: "If you were called upon as an engineer or expert to prepare from that drawing, Exhibit D, a fitting suitable for use in aircraft, you could do it, couldn't you?")

Q. (By Mr. Huebner): Just answer that yes or no, and then if you want to give an explanation, you go ahead and give it.

A. No, I don't think that I could, because the present standard, you might say, for gauging the quality of a fitting which is required for aircraft is the AN fitting, which includes the sleeve head angle and those three zones that we spoke of, and this disclosure does not show a sleeve head angle or those three zones.

Q. I didn't say anything about standards; I said could you prepare from that drawing a fitting suitable for use in aircraft? Can you or can't you?

A. That depends on what you mean by "suitable." It is not suitable if it is to be gauged by the standards of the present fitting. [503]

Q. All right. Can you prepare one that will work.

A. Well, you are still talking about "suitable"

(Testimony of John N. Wolfram.)

when you are speaking of "work." Work by what standards? [504]

Q. Don't ask me.

A. I don't know what you want. You can make almost anything work after a fashion. You can take a piece of string and wrap it around pipe and make a tight joint for some condition, maybe a half-pound of water pressure, or something like that.

Q. Well, is it your position you couldn't make from that drawing a fitting that would perform satisfactorily in an airplane?

A. Not to the standards that are now called for.

Q. When you talk about standards, are you talking about measurements or tests?

A. Well, I am talking about the performance of the fitting.

Q. All right. What about the performance requirements? You brought it up, I didn't.

A. What about them?

Q. What are the performance requirements for fittings of this character?

A. The performance requirements for this fitting are set out in the ANF 47 specification.

Q. Well, I say, what are they?

A. That is a detailed specification.

Q. Don't you know some of them offhand?

A. Yes. [505]

Q. All right.

A. One of the requirements is that the fitting must be capable of being assembled and disas-

(Testimony of John N. Wolfram.)

sembled 15 times, not only under normal wrench pressure, but under overtightened wrench pressure. This fitting here certainly would not do that.

Q. And when you say "this fitting here," you are talking about what?

A. About the disclosure of Exhibit D.

Q. You mean you couldn't make a fitting from that disclosure that you could assemble and disassemble 15 times?

A. I don't see how you could.

Q. Why not? What is wrong with it?

A. Well, for one thing, as we found out from the sample, the lead flows out into the undercut so that you can't get it apart the first time.

Q. Supposing apart from the lead, which is not a part of the fitting, suppose you had an aluminum tube, used an aluminum tube in that drawing, Exhibit D. Then you could assemble and disassemble it 15 times, couldn't you?

A. I don't know.

Q. What is your opinion?

A. I just don't know whether you could or not.

Mr. Huebner: Your Honor, I am willing to continue, but we won't be through, I am afraid, in another five or 10 [506] minutes, the way this is going.

The Court: I don't know what the materiality of this is. I don't know what the materiality of the lead pipe is. As I understand it, it is not a question of whether this fitting is suitable for lead pipe or whether it is suitable for aluminum. It is a question

(Testimony of John N. Wolfram.)

of the fitting, not the pipe. Maybe the lead does play a part in here. I don't know.

Mr. Huebner: My point is it doesn't play a part so far as construing the patent is concerned. It is the parts of the fitting we are concerned with.

The Court: The thing I am concerned about, Mr. Huebner, is time. If you don't finish this case by Friday, it is going over to fall.

Mr. Huebner: We are unfortunately aware of that, too, your Honor.

The Court: Of course, I know that the plaintiff has taken a great deal of time to present his case and I assume the defendant could very logically say, "I am entitled to as much time as the plaintiff," and if the defendant takes as much time as the plaintiff has taken, we are not going to finish.

Mr. Freeman: I am going to ask you, your Honor, I recognize your Honor is going to a judges conference and we have the 4th of July, but we certainly like to complete the case, if at all possible, for two reasons. First, I think [507] the court is now a little more familiar with the case, both from the defendants' viewpoint and the plaintiff's viewpoint, than he will be maybe three or four months hence. Then, part of our people come from Cleveland and part of our people come from Chicago, and I am anxious to not increase the expense of travel, and time in travel, for the client any more than I have to. I still recognize the court has a calendar to follow and, of course, we will have to abide by the court's wishes, but if it is possible to go on any

(Testimony of John N. Wolfram.)

time after you get back from your judges conference, I think a day or so might clean it up.

The Court: You told me the other day you had only one short witness outside of this witness here.

Mr. Freeman: That is correct. We have some depositions, and we do have a short witness when this witness is through.

The Court: Mr. Huebner, how long is it going to take you to present your case? Are you going to take as long as the plaintiff?

Mr. Huebner: Your Honor, I hesitate to commit myself, because my words might be thrown back at me. We have three witnesses, as the case now stands. Two of them will require considerable time. The other will require a brief time. How long it will take, of course, is dependent not only on our presentation, but on the length of the cross-examination.

The Court: I notice on both sides that there has been [508] unnecessary repetition. I understand that patent cases are technical cases and you are entitled to make your record, and if you are not satisfied in presenting it one way, you can change a word or two in order to present it in another way. You have gone over and over things. I know it is pretty hard to follow, but I think there has been some time used that was not absolutely necessary. Here is our situation. You know we have got a calendar to maintain. I set a case for trial. I try to ascertain the time it is going to take. You have now had a week. You began a week ago yesterday, a week ago today. Originally, it was set for Tues-

(Testimony of John N. Wolfram.)

day and you continued it from Tuesday to Wednesday. I don't know who requested the continuance.

Mr. Freeman. No, there was no continuance.

Mr. Lyon: Your Honor set it for Wednesday way back.

The Court: I am looking at another case. Excuse me. I am looking at another case. That is right. So I allocated the time. Counsel takes more time than allocated. That always causes complications.

I will have the clerk check up this noon and see how my July 5 calendar is, but if you don't get through Friday, you will have to be here near two weeks.

Mr. Freeman: That we can take and rather enjoy. You know, after all, we are from Cleveland and Chicago.

The Court: You are on a per diem, I [509] assume.

Mr. Freeman: Your assumption is absolutely correct.

The Court: If the court holds you over here, your client can't complain very much, I don't suppose. [510]

Well, I would like to get the case out of the way. I agree with you that the matters are much more familiar than they will be sixty or ninety days from now, or even six months.

In the meantime I wish that you would see whether or not you cannot speed up the procedure just a little bit.

(Testimony of John N. Wolfram.)

Now, I think it is rather unfair for the plaintiff to say now, "Speed it up," when the plaintiff has taken all the time he has taken.

Mr. Freeman: I recognize that, and we are not going to ask the defendant to shorten their case at all, your Honor.

The Court: Well, we will recess now until 2:00 o'clock this afternoon.

(Whereupon, at 12:05 o'clock p.m. a recess was taken until 2:00 o'clock p.m. of the same day.) [511]

Wednesday, June 21, 1950. 2:00 P.M.

Mr. Huebner: Your Honor, as a measure of co-operation we are willing to waive further cross-examination of Mr. Wolfram, providing Mr. Freeman is also willing to let him step from the witness stand.

The Court: As far as I know, I think he can't help himself, because I don't think you advanced any questions. Well, you did ask some questions, too.

Mr. Freeman: We can save time. I will go along on that.

The Court: All right. Swell. You may step down. We are glad to get rid of you, finally.

I might say for counsel's information, that if the plaintiff doesn't finish their case pretty soon they will have to give me another gadget.

Mr. Freeman: Do you mean to play with?

The Court: Yes, because I have almost worn this one out.

Mr. Freeman: At this time I am going to offer the depositions of Frederick E. Amon, Jr. and Robert Henry Davies, taken before William Ferris, a notary public in and for Cayuhoga County, Thursday, May 5, 1949, on behalf of the plaintiff.

The Court: Are those the originals? [512]

Mr. Freeman: Those are the originals.

The Court: They may be opened.

Mr. Freeman. Will they be given exhibit numbers or will they be in the record?

The Court: They will be in the record.

Is it going to be necessary to read these depositions in the record, if they are already in the record?

Mr. Freeman: I am going to offer as Plaintiff's Exhibit 64 the physical specimen referred to during the taking of the Amon and Davies deposition as Exhibit 1.

The Court: It may be received.

(The device referred to was marked Plaintiff's Exhibit 64 and was received in evidence.)

Mr. Freeman: As Plaintiff's Exhibit 65, Exhibit No. 3 of the Amon deposition, a letter from the Parker Appliance Company addressed to the Assistant Chief, Materials Division, Wright Field, Dayton, Ohio, dated October 25, 1940.

The Court: It may be received.

(The document referred to was marked Plaintiff's Exhibit 65, and was received in evidence.)

Mr. Freeman: I think the defendants already have copies of the paper exhibits we are now referring to.

As Plaintiff's Exhibit 66 a set of drawings referred to in the Amon deposition as Exhibit 4.

The Court: It may be received. [513]

(The set of drawings referred to was marked Plaintiff's Exhibit 66, and was received in evidence.)

Mr. Freeman: As Plaintiff's Exhibit 67 the AN-F-366 pamphlet referred to in the Amon deposition as Plaintiff's Exhibit No. 5.

The Court: It may be received.

(The pamphlet referred to was marked Plaintiff's Exhibit 67, and was received in evidence.)

Mr. Freeman: As Plaintiff's Exhibit 68, the AN-F-47 referred to in the Amon deposition as Plaintiff's Exhibit No. 6.

Mr. Huebner: Is that a pamphlet?

Mr. Freeman: That is likewise a pamphlet.

As Plaintiff's Exhibit 69 a physical device referred to in the Amon deposition as Plaintiff's Exhibit No. 7.

The Court: It may be received.

(The pamphlet referred to was marked Plaintiff's Exhibit 68, and the device referred to was marked Plaintiff's Exhibit 69, and both were received in evidence.)

Mr. Freeman: As Plaintiff's Exhibit 70 a drawing referred to in the Amon deposition as Exhibit No. 8.

The Court: It may be received.

(The drawing referred to was marked Plaintiff's Exhibit 70, and was received in evidence.)

Mr. Freeman: And as Plaintiff's Exhibit 71 a physical [514] specimen of a fitting embedded in lucite or other transparent material, referred to in the Amon deposition as Plaintiff's Exhibit 9.

The Court: It may be received.

The Clerk: Exhibit 71 in evidence.

(The specimen referred to was marked Plaintiff's Exhibit 71, and was received in evidence.)

Mr. Freeman: I also want to offer the deposition of W. Howard Ehmann, William D. Clark, Edward M. Greer and Roland Berg, taken on May 10th and May 11th, 1949, at New York.

The Court: It may be received.

Mr. Freeman: I might say that defendants' counsel representing both the defendants here, as well as one of the defendants, attended the taking of all of these depositions.

The Court: The depositions will be received in evidence, unless there were some objections in the depositions that counsel wishes to urge.

Mr. Freeman: I am offering all the depositions, including the cross-examination, in its entirety.

Mr. Huebner: I think, your Honor, we can just

let it stand with your Honor to rule, if you would, upon any objections that appear in the transcript of the depositions as they occur. [515]

The Court: If there are any objections in the transcript that you wish to be heard upon we will hear you and rule upon them.

Mr. Huebner. At the moment, Mr. Beehler, who was the attorney present, doesn't recall anything that we need to urge.

Mr. Freeman: That is my memory, too, your Honor.

I am going to ask Mr. Wagner to take the stand.

Incidentally, your Honor, I may refer to those depositions as the case goes along, especially the deposition of Mr. Clark and Mr. Berg. They are both members of the staff of the Republic Aviation Corporation at Farmingdale, New York, and Mr. Clark was with the Service Department during the war, of Republic Aviation, who built many combat planes using these fittings, and Mr. Berg is a hydraulics engineer on the staff of Republic Aviation, and has been in that business for some twenty years or so. [516]

CHARLES H. WAGNER, JR.

recalled as a witness by and on behalf of the plaintiff, having been previously duly sworn, resumed the stand and testified further as follows:

Direct Examination

By Mr. Freeman:

Q. Mr. Wagner—

Mr. Freeman: First, Mr. Huebner, I could save considerable time if you could enlighten me with respect to the answer wherein you have said that we did not grant any rights, or that we did not make the invention available during the war. I mean, you deny that, so, of course, we are put to the burden of our proof. I have here the proof—at least, attempted proof.

Mr. Huebner: If you want to wait just a minute, maybe we can clear it up.

Your Honor, it may not be a material issue, I don't know, but there are some discrepancies in the facts related to me and I think, perhaps, Mr. Freeman should proceed.

Q. (By Mr. Freeman): Mr. Wagner, did your company grant permission generally to manufacturers of fittings or permit the manufacturers to manufacture fittings corresponding to Parker drawings?

A. They did. We granted permission, not only to fitting manufacturers, but also to the major aircraft [517] companies.

Q. Do you have a list, and will you read into

(Testimony of Charles H. Wagner, Jr.)

the record the names of some of the companies that permissions of one form or another were given to, so that they might manufacture fittings of the Parker kind?

A. Yes. I have a list that apparently was prepared in 1945, listing some of the companies to whom we had granted permission to manufacture.

The American Machine Tool Company, Dayton, Ohio.

Boeing Aircraft, Seattle, Washington.

Beech Aircraft, Wichita, Kansas.

Bell Aircraft, Buffalo, New York.

Canadian Vickers, Montreal, Canada.

Consolidated-Vultee, San Diego.

Curtiss-Wright Corporation, Robertson, Missouri.

John Deere Harvester Company, Moline, Illinois.

Douglas Aircraft, Santa Monica, California.

Incidentally, we apparently granted permission to all the Douglas plants, in Chicago, Santa Monica, Long Beach, El Segundo, and Los Angeles.

Dunbar Kapple, Chicago.

C. J. Conn, Ltd., Elkhart, Indiana.

Eastern Aircraft, Trenton, New Jersey.

General Motors Corporation, Detroit, Michigan.

Goodyear Aircraft, Akron, Ohio. [518]

Grumman Aircraft Engineering Corporation, Beth Page, New York.

(Testimony of Charles H. Wagner, Jr.)

Haverill Corporation, Los Angeles.

Hughes Aircraft, Culver City, California.

Walter Kidde and Company, Bellville, New Jersey.

Koppers Company, Baltimore, Maryland.

Lockheed Aircraft, Burbank, California.

Glenn L. Martin, Baltimore, Maryland.

Irvin W. Masters, Los Angeles, California.

McDonald Aircraft, St. Louis, Missouri.

North American Aviation at Dallas, Texas;
Inglewood, California, and Kansas City,
Kansas.

Northrup Aircraft, Hawthorne, California.

Pratt & Whitney Aircraft, East Hartford, Connecticut.

Trenton Brass and Machine, Trenton, New Jersey.

Railway and Power Engineering Corporation,
Montreal, Canada.

Wells Aircraft Parts Company, Los Angeles.

Rheem Manufacturing Company, Los Angeles.

Curtiss-Wright, Buffalo, New York.

Republic Aviation, Farmingdale, New York.

Public Service Brass Company, Huntington
Park, California.

National Brass Manufacturing Company, Rochester, New York. [519]

Kottle Manufacturing Company, Los Angeles.

That is a partial list of companies to whom we granted letters of permission.

Q. Did that list include Irvin W. Masters?

(Testimony of Charles H. Wagner, Jr.)

A. It did.

The Court: May I ask a question?

Mr. Freeman: Yes.

The Court: You say you granted letters of permission.

The Witness: Yes, your Honor.

The Court: In other words, you gave specific permission to every one of those you named?

The Witness: Yes, we wrote each one a separate letter granting them permission to make or have made the Parker Appliance parts.

The Court: Is the letter of permission to Masters a sample of the letters of permission that you gave to these other people?

The Witness: Yes, I would say that it was, your Honor. The first permission we granted was to North American, if my recollection is correct, and in that first letter we limited the manufacture to them. Later we amended it so that they could manufacture themselves or have manufactured, and that established the later pattern of having whoever got the letter be able to have manufactured for them.

The Court: You never did send a letter to Collins? [520]

The Witness: I don't recall, your Honor, whether we have or not. I don't see it on this list and, as far as I know, I would have to answer no.

The Court: My understanding of the stipulation at the beginning of the trial was that Collins got the authority from the user.

(Testimony of Charles H. Wagner, Jr.)

The Witness: It well could be. We gave North American——

Mr. Freeman: There is no stipulation to that effect. We don't know where Collins got it.

The Court: It was the statement of counsel, then, without a stipulation.

Mr. Freeman: Are you through, your Honor?

The Court: Yes.

Q. (By Mr. Freeman): Did you or the Parker Appliance Company—when I say you, that is who I am referring to—furnish drawings to any of these companies?

A. Yes, we did. We furnished drawings any time that these companies asked for them from 1941 until the end of the war. It ran into a number of thousands of drawings.

Q. Did you have any department set up for supplying drawings to other fitting manufacturers who had to manufacture the Parker type fitting?

A. It is my recollection that during this war period, we had a service department, customers service department, [521] which had between five, six, or seven people, doing nothing except getting out these prints to these companies.

Q. I hand you a report entitled "Aircraft Report No. P-151-L," entitled "Parker Type Fitting Requirements vs. Capacities," put out by the Aircraft Scheduling Unit of WPB, which on June 8, 1950, was declassified so that I would not be today violating the Espionage Act 50 USC 31 and 32. I will ask you to state just what it is.

(Testimony of Charles H. Wagner, Jr.)

A. During the war the Aircraft Scheduling Unit published reports from time to time which gave the requirements of the aircraft building program against the capacities then available for Parker type fittings. They refer to the fittings as the Parker type fittings. Briefly, they listed some, approximately, I would say, 50 companies on this, not all of whom we granted letters of permission, because I see names that are unfamiliar to me, showing the requirements of the Air Force for Parker type fittings against the open capacities of these people. This report was for the purpose of trying to find out if they had enough capacity to get fittings.

Q. Is Irving W. Masters as an individual referred to in the report that you have in your hand?

A. Yes. It says I. W. Masters, Glendale, California. It also, as a matter of interest, designates the type of fitting after each manufacturer's name, so that the ASU could [522] readily tell what type fitting the manufacturer was capable of producing.

There is a note attached to this, or a note on the sheet, which shows that the capacities were obtained from the manufacturers and represent their ability to make Parker type fittings. Then they spread out the capacities from February, 1943, to March of 1944. [523]

Mr. Freeman: I am going to offer in evidence the document entitled "Aircraft Report" as Plaintiff's Exhibit 72.

The Court: It may be received.

(Testimony of Charles H. Wagner, Jr.)

(The document referred to was marked Plaintiff's Exhibit 72, and was received in evidence.)

Q. (By Mr. Freeman): I hand you a group of letters, which we will mark for identification Plaintiff's Exhibit 73, A, B, and C, and will ask you to explain just what they are.

(The documents referred to were marked Plaintiff's Exhibit 73, 73-A, and 73-B, for identification.)

A. The first letter is a copy of a letter written by Parker Appliance Company to the Assistant Chief, Materiel Division, Wright Field, Dayton, Ohio, dated March 3, 1941, on the subject of flared tube couplings, sending to Maj. K. B. Wolfe, 811 drawings.

The letter which I think now is marked 73-A, was a letter from the War Department, Air Corps, Materiel Division, Wright Field, to the Parker Appliance Company, dated May 25, 1942, wherein they put certain interpretations on our letter of March, 1941, as to whether or not we had intended to grant them permission for the duration of the present emergency to use the Parker fittings.

The third sheet or letter, which I see is marked Plaintiff's Exhibit 73-B, is a letter from the Parker Appliance Company, signed by myself when I was assistant secretary, [524] directed to the Commanding General, Army Air Forces, Materiels Center, Wright Field, Dayton, Ohio, to the attention of

(Testimony of Charles H. Wagner, Jr.)

Col. A. E. Jones, wherein Parker granted for the duration of the present national emergency the right to make, use, or can have made for its own use, the flared tube fittings listed on Air Corps Standard Book Sheet 811, and went on to say that we hoped that cleared up all the ambiguity.

Mr. Freeman: I am going to offer in evidence the exchange of correspondence just referred to by the witness Wagner.

The Court: It may be received.

The Clerk: 73, 73-A and 73-B.

(The documents, heretofore marked Plaintiff's Exhibit 73, 73-A and 73-B, for identification, were received in evidence.)

Mr. Huebner: Do you have photostats?

Mr. Freeman: I will have for you.

Q. (By Mr. Freeman): Mr. Wagner, can you briefly here, and as rapidly as you can, give us some relative figures, either by units or dollarwise, of sales of Parker fittings of the kind here involved?

Mr. Huebner: That is objected to as immaterial, your Honor, unless it is confined to structures made under and in accordance with the patent in suit.

Mr. Freeman: I will so limit it. [525]

The Court: Do you mean made by the Parker Company or made by everybody?

Mr. Freeman: I mean made by the Parker Company. We don't know the figures that were made by others.

The Court: You had this report from the gov-

(Testimony of Charles H. Wagner, Jr.)

ernment. I was wondering whether you weren't able to use that report as to the total value of the fittings.

Mr. Freeman: I think you would need a slide rule plus a calculating machine.

The Court: Are you restricting it to the Parker Company?

Mr. Freeman: Yes. Of which he is an officer and of which he has personal knowledge.

The Court: Do you also restrict it as to time? Do you want to begin from the very beginning up to the present time?

Mr. Freeman: No, I do not. Say '42 and '43. Just give up a couple of years, and then perhaps give us last year's figures, either by month sales in dollar volume or units.

Mr. Huebner: That, your Honor, doesn't remove my objection. Of course, on cross-examination we can go into it. But that is why I am objecting. Maybe we can pin it down to what it was that was sold that represented so many dollars.

Mr. Freeman: Can we agree we are talking about AN [526] fittings, then?

Mr. Huebner: If you want to make the question that way, then that point in my objection will become a matter of argument. I still say the AN fitting is not the patented fitting. But if the question is limited to the AN, all right, I will let it go momentarily.

The Court: Will you limit it to the AN fitting?

Mr. Freeman: Yes, I will do that.

(Testimony of Charles H. Wagner, Jr.)

Q. (By Mr. Freeman): If you have figures, at least give us your best general information.

A. I am going to have to answer this way: that the figures that I examined before I left Cleveland were taken from our general ledger sales of fittings. However, they were for the years 1942 and 1943, and as far as I know from my knowledge being with the company, some of the 1943 sales might be AN fittings. In the year 1942—and, by the way, your Honor, when I speak of the year 1942 I should say that I am speaking of the company's fiscal year ending June 30, 1942, and 1943—I am very certain that most of those were the AC-811 fitting made under the 2,212,183.

Q. I will limit my question to the year 1942, to the fittings that we call the 811.

A. I will answer this way: During that fiscal year we sold fifteen million plus dollars worth of fittings, and of that group it is my opinion, after talking with our people [527] in Cleveland, and examining what few records we have, that about 80 per cent of that dollar volume represented the AC-811 fitting.

Q. And the reason you are referring to the AC-811 is because at that particular time there had not yet been the standard AN set-up, is that correct?

A. No. May I say this? I don't mean to take the court's time, because I know we are pressed, but I was familiar at that time with the WPB order, limiting order 313, which stated in so many words that subsequent to a given date in 1943—and

(Testimony of Charles H. Wagner, Jr.)

I don't remember the exact date—the AC-811 was not permitted to be used on new constructed airplanes, they must go to the AN. I would assume that by that time the AN had been a standard.

Q. What are your figures, then, for the year 1943?

A. Twenty-four million dollars worth of fittings sales, and I would again say that about 80 per cent of that represented the AC-811 or the AN.

The Court: May I ask a question?

Mr. Freeman: Yes.

The Court: Do you know or can you give us any information as to what the volume of the Parker Company was compared to the volume of the licensees? In other words, you testified in '42 you sold about fifteen million dollars worth of fittings. Did these other companies that were making fittings [528] sell as many, or more, or less, or what?

The Witness: Your Honor, I will answer that this way: I recall that our sales department, which at that time was headed by Mr. Frederick E. Amon, made studies from time to time, and it is my recollection that it was reported to me that our percentage of the over-all fitting business then available in 1942 amounted to approximately 80 per cent. In 1943 our business, of the total available fitting business, had dropped to considerably less. And in 1944 it is my recollection that we only furnished 29 per cent of the total fitting business. I am just pulling this out from past recollection of where we were going during the war years. But I think it

(Testimony of Charles H. Wagner, Jr.)

is substantially in line. From 1944 we accounted for about 29 or 30 per cent of total fitting business for the aircraft field. [529]

The Court: Well, would you say that since the war you regained your position relative to the percentage of the fitting business?

The Witness: It is our opinion, and it is mine as treasurer, no. Your Honor, we are now going just about \$200,000 a month in the fitting business, between \$175,000 and \$200,000 a month.

Q. (By Mr. Freeman): So that, as you have just stated, early, at the outset of the war, your company was manufacturing about 80 per cent of the overall volume?

A. In 1942. Prior to that time, I would say we had closer to 90 per cent.

Q. Your volume decreased as you permitted others, or your percentage of the overall volume decreased as you permitted others and furnished others with prints so that they, too, might make fittings?

A. Oh, yes. It went down substantially.

Q. As you see your business now, are you talking about 1950, 1949, or what period are you talking about when you say between \$175,000 and \$200,000 per month?

A. I am talking about the last monthly report which I saw before I left Cleveland, which would be for April, our final figures.

The Court: You are restricting your answers to fittings, aren't you? [530]

(Testimony of Charles H. Wagner, Jr.)

The Witness: Yes.

The Court: You are not including any other products?

The Witness: That is correct.

Q. (By Mr. Freeman): The overall volume in other items is way in excess of \$200,000 per month?

A. Yes. Our volume of business, your Honor, runs between seven and seven and one-half millions a year, of which fittings account for slightly less than one-third.

Q. I was going to ask you if you could quickly translate from Plaintiff's Exhibit 72 the number of fittings that you were able to make during certain given months in 1943 and 1944, just so that we can have volume of fittings as distinguished from dollar volume.

A. Well, from this exhibit, Plaintiff's Exhibit No. 72, the figures shown here, other than percentages, are pieces. When I say pieces, that is to differentiate it from dollars. In 1943, February, Parker's capacity was 9,500,000 pieces of fittings. It then went up till July, 1943, when our capacity was 12,000,000 fittings a month. Then in 1944, in January of that year, Parker's capacity was 15,000,000 fittings a month in pieces.

The Court: In pieces. Do you mean the entire fitting or do you mean the parts of the fitting?

The Witness: I think at that time, and I would say I think, they referred to parts of the [531] fitting.

(Testimony of Charles H. Wagner, Jr.)

Q. (By Mr. Freeman): So that 15,000,000 pieces would be 5,000,000 fittings?

A. Yes. Frankly, your Honor, I don't know, but I think that is the way they did it.

The Court: You used the word "pieces" and I wanted to know what you meant by using the word "pieces."

The Witness: Well, then, the sleeve would be one piece, the body another piece, and the nut a third piece.

Q. (By Mr. Freeman): Then, is it fair to say that really hundreds of millions of Parker fittings were used during the war period? A. Yes.

Mr. Freeman: Will you mark this as Plaintiff's Exhibit 74?

(The document referred to was marked Plaintiff's Exhibit No. 74 for identification.)

Q. (By Mr. Freeman): I hand you a document, which we will mark for identification Plaintiff's Exhibit 74, and I will ask you to state what it is.

Mr. Freeman: I have here a photostat of it, and I likewise have the original, and I am going to ask that we be permitted to use the photostat, although the original is available in court.

A. This is a photostatic copy of a license agreement dated July 1, 1947, between the Parker Appliance Company and [532] the Weatherhead Company of Cleveland, Ohio.

Q. Is the Weatherhead Company a long-established company in the manufacture of fittings?

(Testimony of Charles H. Wagner, Jr.)

A. Yes, it is.

Q. It has been in business, as far as you know, all the time you have been connected with the Parker Appliance Company?

A. Yes, and I imagine a good deal longer than that, although I know they were in business when I came with Parker.

Q. Is it a fact that the Weatherhead Company manufactures what we here refer to as the AN fittings? A. Yes.

Q. And is it a fact that they actually pay your company a royalty? A. Yes, they do.

Q. And can you give us just generally whatever royalty payments you have received from the Weatherhead Company?

A. Well, the royalties this past year up to the quarter ended March 31 were running approximately \$1,800 a quarter. The Weatherhead Company has not been particularly active in the AN fitting field at this time, apparently confining most of their efforts to automotive work.

Q. And the document that you have was taken from the [533] files of the Parker Appliance Company?

A. The original document was taken from the files of the Parker Appliance Company, and this is a photostat of the original.

Mr. Freeman: I am going to offer as Plaintiff's Exhibit 74 a license agreement from Parker to the Weatherhead Company of Cleveland, Ohio.

Mr. Huebner: Objected to, your Honor, as not

(Testimony of Charles H. Wagner, Jr.)

relevant or material. There is no tie-up between this document and the structures asserted to be protected under the patent in suit.

The Court: Can I ask you a question?

Mr. Freeman: Yes.

The Court: Is it your theory that you can establish validity of your patent by introducing in evidence a license agreement made by third parties?

Mr. Freeman: The license agreement, while it has to do with third parties, is always permissible to show acquiescence or recognition by others of the patent in suit, and it is permissible——

The Court: That is the only purpose it is being introduced for?

Mr. Freeman: Yes.

The Court: To show other people have——

Mr. Freeman: Have respected it. [534]

The Court: ——have respected your patent?

Mr. Freeman: That is right.

The Court: But it has no binding effect, as far as the defendants are concerned?

Mr. Freeman: If it had any binding effect, they wouldn't be in court here today.

The Court: The objection is overruled. It may be received.

(The document referred to was received in evidence and marked Plaintiff's Exhibit No. 74.)

The Court: I think counsel will stipulate, maybe, you have licensed certain manufacturers and they are paying you a royalty.

(Testimony of Charles H. Wagner, Jr.)

Mr. Freeman: I tried to get that from them, your Honor, at the outset, with respect to the government, and I was told to go ahead and do it the hard way, and I am doing it that way.

Will you mark this as Plaintiff's Exhibit 75 for identification?

(The document referred to was marked Plaintiff's Exhibit No. 75 for identification.)

Q. (By Mr. Freeman): I hand you a document, which we will mark Plaintiff's Exhibit 75 for identification, from the Parker Appliance Company to the Deutsch Company, 7000 Avalon Boulevard, Los Angeles 3, California, and will ask [535] you to state what it is.

A. This is a photostatic copy of a license agreement from the Parker Appliance Company of Cleveland, Ohio, to the Deutsch Company of Los Angeles, California, dated October 16, 1947, to which is attached a copy of a letter from the Deutsch Company to the Parker Appliance Company, correcting a date, which appears in paragraph 8 of that license agreement. Just running through this briefly, I notice it is a royalty license agreement.

Q. Have you received any money by way of royalties from the Deutsch Company in connection with its operation under that license agreement?

A. Yes, we have.

Q. And can you give us briefly the amount or at least the general figure?

A. Offhand, my recollection is that to date we have received \$3,000.

(Testimony of Charles H. Wagner, Jr.)

Q. The agreement does provide for a minimum of \$12,500 a year? A. Yes.

Q. And the agreement further provides it cannot be cancelled for a period of three years?

Mr. Huebner: The agreement speaks for itself, if you want to speed matters up, your Honor.

The Witness: Yes. [536]

Mr. Freeman: I am trying to speed it up by just asking a question or two.

I offer in evidence the agreement from the Parker Appliance Company to the Deutsch Company as Plaintiff's Exhibit 75.

The Court: It may be received.

Mr. Huebner: Same objection, your Honor.

The Court: Same ruling. It may be received.

(The document referred to was received in evidence and marked Plaintiff's Exhibit No. 75.)

Mr. Freeman: Will you mark this as Plaintiff's Exhibit 75 for identification?

(The document referred to was marked Plaintiff's Exhibit No. 76 for identification.)

Q. (By Mr. Freeman): I hand you a document marked Plaintiff's Exhibit 76 for identification and will ask you to state what it is, and perhaps you can shorten your answer by referring to the former exhibit.

A. Plaintiff's Exhibit 76 is a photostatic copy of an agreement between the Parker Appliance

(Testimony of Charles H. Wagner, Jr.)
Company, Cleveland, Ohio, and the Pacific Screw Products Corporation, Southgate, California, dated October 16, 1947, and it is similar to the license granted to the Deutsch Company, Plaintiff's Exhibit 75.

Q. And it is my understanding that the company has [537] not paid you any royalty and has not manufactured under that license; correct?

A. So far, they have paid us no royalty and have reported no manufacture.

Mr. Freeman: I offer in evidence as Plaintiff's Exhibit 76, the license agreement from the Parker Appliance Company to Pacific Screw Products Corporation.

Mr. Huebner: Same objection, your Honor, as in regard to Exhibits 74 and 75.

The Court: Same ruling.

(The document referred to was received in evidence and marked Plaintiff's Exhibit No. 76.) [538]

Q. I hand you a document entitled "In the District Court of the United States for the Eastern District of Michigan, Southern Division," entitled "The Parker Appliance Company, Plaintiff, v. V. L. Graf Company, Inc., Defendant, Final Judgment," and will ask you to state what it is.

Mr. Freeman: I am going to ask that it be marked for identification as Plaintiff's Exhibit 77.

(The document referred to was marked Plaintiff's Exhibit 77, for identification.)

(Testimony of Charles H. Wagner, Jr.)

A. This is a final judgment by the Parker Appliance Company against the V. L. Graf Company, stating that the defendant had consented to the entry of this judgment, and therefore it is ordered, adjudged and decreed that the plaintiff is the owner of United States Letters Patent 2,212,183, and all rights thereunder; and, 2, that defendant be enjoined from infringement of said letters patent; and, 3, that no costs or damages shall be awarded in favor of either of the parties hereto as against the other.

The decree apparently has been certified by the clerk on May 25, 1950, and is also signed by the Graf Company.

Mr. Freeman: I offer in evidence as Plaintiff's Exhibit 77 the final judgment just referred to by the witness Wagner.

Mr. Huebner: Objected to as irrelevant and immaterial.

The Court: I thought I asked at one time whether or not [539] there had been any decision relative to establishing the validity of this patent, and I was told there hadn't been.

• Mr. Freeman: Your Honor, I certainly didn't intend to misstate myself, if I did. I took it when you asked whether or not some court had actually passed upon the validity, that you meant by listening to all the evidence and then rendering a decision, and predicating a judgment on that decision. This is what we call in patent law, and in any other law case, a consent decree. It has little value over

(Testimony of Charles H. Wagner, Jr.)

and above the fact that the man was willing to back away and didn't face a law suit, and was willing to be enjoined from further manufacturing, so he respected the patent in the same way that a licensee respects a patent.

The Court: Although this final judgment says that plaintiff is the owner of the patent, and so forth and so on, you are not now contending that this court has determined your validity of the patent?

Mr. Freeman: When you say "this court," I take it you are referring to the judge in the District Court in Michigan?

The Court: Yes.

Mr. Freeman: No, that judge did not have before him all of the facts that your Honor has, and it would have been a misstatement on my part had I informed you that some court had actually passed upon the validity of the patent. I leaned over backwards, and I know that Mr. Huebner will [540] agree with me that my statement was a fair statement.

Mr. Huebner: I didn't find any fault with his statement. I didn't know about this consent judgment, but that is neither here nor there.

The Court: Evidently from what Mr. Freeman says, this consent judgment doesn't do anything except that the defendant is willing——

Mr. Freeman: That particular defendant.

Mr. Huebner: It indicates that he picked off a weak sister, that's all.

(Testimony of Charles H. Wagner, Jr.)

The Court: If that defendant were here in court, he might not agree with you. He just had greater discretion, rather than being a weak sister.

Mr. Huebner: Or it might be somebody that manufactured one fitting in his back yard laboratory and didn't want to fight a suit.

The Court: I want it understood that this was not a decision in which the validity of the patent had been sustained.

Mr. Freeman: That is exactly what I said.

The Court: All right. It may be admitted.

(The document, heretofore marked Plaintiff's Exhibit 77, for identification, was received in evidence.)

Mr. Freeman: You may cross-examine. [541]

Cross-Examination

By Mr. Huebner:

Q. Mr. Wagner, I don't suppose that you have personal knowledge, do you, of what the various companies manufactured pursuant to the letters of consent?

A. No, I wouldn't have personal knowledge of that. Whatever the letters showed.

Q. You are still assuming something that isn't of your own personal knowledge, aren't you, when you say that they manufactured what was referred to in the letters? A. I would only——

Q. I only want to clarify that you didn't make

(Testimony of Charles H. Wagner, Jr.)

an inspection trip and check up and see that each one of these recipients of a letter was making exactly what is talked about?

A. No, I will agree with that, I did not make any check-up of what they made.

Q. To what do you attribute the failure of Parker Appliance Company to regain its relative position in the fitting business since the war?

A. Well, I would say from the unlicensed manufacture of the Parker fitting.

Q. Has that unlicensed manufacture been widespread enough to injure your business?

A. Well, apparently. It is certainly hurting our [542] business.

Q. Who are some of the people whom you claim to be unlicensed manufacturers that hurt your business?

A. Irvin W. Master, Inc., Collins.

Q. There are a lot of others, aren't there?

A. I can think of Gideon & Ramey, Carruthers & Fernandez.

Q. Let me help suggest some names, and you tell me whether you, as an officer of Parker Appliance Company, think that these names that I will give you are persons or companies also infringing the patent in suit. How about the Sanford Company?

A. As far as I know they apparently are manufacturing fittings.

Q. And you think they are infringing the patent in suit?

(Testimony of Charles H. Wagner, Jr.)

A. I believe so. I believe we even sent them a charge of infringement.

Q. And where are they located?

A. I think in this district in Los Angeles.

Q. You mentioned the name of Gideon & Ramey; do I understand that you think they are also infringing the patent in suit?

A. As I recall, yes.

Q. Where are they located? [543]

A. In Los Angeles.

Q. What about the Rogerson Engineering Company?

A. I don't know. We may have sent them a charge of infringement.

Q. And whenever you send a charge of infringement, that is based upon information which you or your attorneys believe to justify bringing an action for infringement of the patent in suit, is that right?

A. That is correct.

Q. I think you mentioned Carruthers & Fernandez? A. Yes.

Q. Where are they located?

A. I think they are located here in Los Angeles.

Q. And your company is charging them to be infringers? A. I think so.

Q. How about the Durite Manufacturing Company?

A. Not that I know of. And the name is familiar to me only in so far as I think it was mentioned in the adverse deposition of Mr. Collins.

Q. How about the Elmore Engineering Com-

(Testimony of Charles H. Wagner, Jr.)

pany? A. I don't recall hearing that name.

Q. How about the Bird Aircraft Company?

A. That is unfamiliar to me.

Q. Airdrome Products?

A. That is unfamiliar to me. [544]

Q. Parks Manufacturing Company?

A. Parks, I think the first time I heard of that was in the taking of Mr. Collins' adverse deposition.

Q. And do you regard Parks Manufacturing Company as an infringer? A. I don't know.

Q. How about Indus. Manufacturing Company?

A. That name is unfamiliar to me.

Q. Victor Pastushian Industries?

A. Unfamiliar.

Q. Al Lamatrice?

A. I haven't heard of him.

Q. All right. Are there any others that neither you nor I have mentioned that you recall to whom or upon whom infringement notices relating to the patent in suit have been served?

The Court: Within what period of time?

Mr. Huebner: Since the termination of the war as counsel regards the termination of the war. In other words, let us say since 1946.

The Witness: Mr. Huebner, I think that the only other one that I can recall would be Aircraft Fitting Company in Cleveland, Ohio.

Q. (By Mr. Huebner): All right. Now, have you yet taken action against these others who have been notified? [545] A. We have not.

(Testimony of Charles H. Wagner, Jr.)

Q. Regarding your comment that so many million pieces of fittings were manufactured by Parker Appliance during a given period, have you any information as to whether those quantities were divided into equal parts so that there were so many million nuts, so many million sleeves, and so many million bodies, which could be assembled into a total number of fittings, one-third the number of the total pieces?

A. I have no knowledge of that, no, Mr. Huebner, I don't personally know. [546]

Q. Well, do you have this knowledge as an officer of the company, that it was the custom, at least during the war, for consumers, that is to say, aircraft companies and others, to purchase from one company one of the parts, or perhaps two of the parts, and purchase from another company or companies, the mating parts to go with what they had bought from, let us say, Parker?

A. Well, I will say this. It is my recollection that in the early days of the war, they bought all three parts from Parker. After we gave out our letters of permission, I would hazard the opinion that undoubtedly they bought wherever they could, particularly because of the problem of capacities. The machines available in some shops couldn't make certain items, perhaps a company couldn't make shapes, and the other companies could, so undoubtedly they got them wherever they could find them.

Q. Isn't it true, also, today, that Parker Appliance Company supplies certain consumers with

(Testimony of Charles H. Wagner, Jr.)

bodies only and allows the customer to do with the bodies whatever they wish?

A. Oh, yes, we sell some bodies to whoever cares to get them.

Q. And isn't it also true that even today Parker Appliance Company will sell sleeves, if sleeves are ordered separately? A. That is correct. [547]

Q. And isn't it also true that today Parker Appliance Company will sell nuts, if a customer orders them separately?

A. That is right. As a matter of fact, making sales that way out of our approximately \$200,000 worth of business, we probably sell \$25,000 a month in that fashion, and the rest of it is assembled fittings.

Q. And those that you sell as individual separate parts may be used by the customer to combine with what you charge to be infringing parts to make up a fitting, isn't that right?

A. As far as I know, they can use it with any mating parts.

The Court: May I ask a question? During the war, when you sold to the government or the Air Force or the Army or Navy, whoever it was, did you sell the fitting as a unit, or did you sell so many thousand sleeves and so many thousand nuts?

The Witness: Your Honor, my recollection is that we did it both ways. In the beginning, I think there were a number—people like Wright Field Materiel Division, when they were ordering spares, might have ordered a complete fitting, the nut,

(Testimony of Charles H. Wagner, Jr.)

sleeve, and body, but I will say this, as the war progressed and the quantities became enormous, I think that they bought sleeves and they [548] bought bodies and they bought nuts.

The Court: And they assembled them themselves?

The Witness: Yes. It is apparently the practice of the aircraft companies to want them unassembled so they can put them together.

The Court: Mr. Huebner, I notice it is 3:00 o'clock. We will take our customary afternoon recess now until 3:15.

(Recess.)

Q. (By Mr. Huebner): Mr. Wagner, the license agreement to the Weatherhead Company, Plaintiff's Exhibit 74, appears to be dated July 1, 1947, in the introductory paragraph, but over on the signature page, the photostatic copy which I have appears to have the numeral "7" scratched out and the "8" written over it in ink so that it would be apparently corrected to 1948. Do you know what the facts are? A. What is the date in 1948?

Q. It says here January 15, 1948.

A. The document is correct. It was dated as of July 1, 1947, which is the date we entered into the negotiations with the Weatherhead Company attorneys. We completed them late in 1947, and I think we did sign it in January, 1948. It took quite some time.

Q. What was the problem involved?

(Testimony of Charles H. Wagner, Jr.)

A. Opposing counsel.

The Court: That is the problem in most lawsuits. [549]

Mr. Freeman: In this particular case, your Honor, no truer statement could ever have been made.

Q. (By Mr. Huebner): Now, will you look, please, at Plaintiff's Exhibit 14, which is a letter from Parker Appliance Company to Irvin W. Masters?

A. I will, if somebody will give me a copy of it.

Q. I will do that. Is that the letter of authorization given by the Parker Appliance Company to Irvin W. Masters in connection with the war effort?

A. As far as I know, this is the only letter we gave Mr. Masters.

Q. Is that the letter which you stated to the court a little while ago is typical of the letters which you gave to others?

A. Yes. At this time, I think it was typical. I notice by looking at this that we apparently limited the consent to manufacture to Mr. Masters, to him only. There were a large number of them and I think to every single one of the aircraft companies, it was to make or have made for their use.

Q. Then the contents of the letter itself are typical of others that you sent out?

A. I would say substantially so. The purpose was to give these people permission to go ahead for the war effort all out.

Q. I would like to ask you just a few questions

(Testimony of Charles H. Wagner, Jr.)

about [550] other possible asserted infringers. Have you served notice on the Beesley Manufacturing Company of Los Angeles?

Mr. Freeman: Object to that as immaterial. Of course, if he wants to get into all these infringers, then I am going to ask the other infringers who are in court, and perhaps helping contribute to the defense of this suit, to stand so we can identify them, so under the Universal Oil decision, they likewise will be bound by whatever decision this court renders.

The Court: Mr. Freeman, you introduced certain evidence in this case showing that Parker Company had licensed certain people.

Mr. Freeman: Had given permission.

The Court: Had given permission, just for the purpose of showing that at least these people had been willing to acquiesce in the fact that the Parker Company claimed and owned the patent, and so forth, and so on. If that was proper, and evidently it is proper in a patent case, because otherwise it would have been objected or you wouldn't even have tried it if it hadn't been proper, but if that was proper, then I think it is just as proper——

Mr. Freeman: I will withdraw my objection.

The Court: All right.

Q. (By Mr. Huebner): I asked you a question about the Beesley Manufacturing Company. [551]

A. Not that I know of, Mr. Huebner.

Q. Do you know whether they are manufacturing

(Testimony of Charles H. Wagner, Jr.)

items your company claims to be infringing the patent in suit?

A. I have no knowledge of them. [552]

Q. Do you know whether the Mueller Company is manufacturing accused items?

A. Not that I know of.

Q. Do you know about the Harvey Machine Company in Los Angeles?

A. The name Harvey is familiar; I don't know in what connection, whether they manufacture Parker fittings or not.

Q. Have you served notice of infringement of the patent in suit upon the Pacific Piston Ring Company at Los Angeles?

A. It could be; the name Pacific Piston Ring I know is familiar to me. Whether we have served a charge of infringement on them or not I don't recall.

Q. Have you knowledge of what they may be manufacturing in the fitting field?

A. We served them a charge of infringement; I imagine they are making Parker fittings. But, as I say, I do not know today what they are making.

Q. Do you know that the Kohler Manufacturing Company of Kohler, Wisconsin, is advertising AN fittings?

A. Yes, I have seen their advertisements.

Q. Do you charge that company to be an infringer of the patent in suit?

A. We have done nothing as yet with Kohler Manufacturing Company. [553]

(Testimony of Charles H. Wagner, Jr.)

Q. Does your corporation, The Parker Appliance Company, regard Kohler Manufacturing Company as an infringer of the patent in suit?

A. Yes, sir.

Q. Besides those that you have been able to identify, isn't it true that there are a good many others over the country who are making parts or fittings which your corporation, Parker Appliance Company, regards as infringers of the patent in suit?

A. I will say that as far as Parker Appliance Company is concerned we believe that there are a lot of people that are apparently making our fitting. I will say the bulk of them apparently are located in Los Angeles.

Q. But there are others in other parts of the country?

A. There is one in Cleveland, Ohio; Aircraft Fittings Company.

The Court: I might say for the benefit of counsel, to carry on the thought I had a moment ago, that I don't think it is very material as far as this action is concerned to show that there are a number of people who are also making fittings and who are considered as infringers of the patent. Neither do I consider it very material to show that there are a number of people who have been licensed.

Mr. Huebner: One has about as much weight as the other.

The Court: Yes, one has just about as much weight as the [554] other.

(Testimony of Charles H. Wagner, Jr.)

Mr. Huebner: I will discontinue that line at this point. I would like now to get into another phase.

Q. (By Mr. Huebner): You have produced three licenses, one to Weatherhead and one to Pacific Screw Products, and one to the Deutsch Company. Do you receive written reports from the Weatherhead Company under that license?

A. Yes.

Q. Does the Weatherhead Company on those written reports show how many parts have been manufactured pursuant to their license during a stated period?

A. I don't know, Mr. Huebner. I think they report dollar volume of sales.

Q. Regardless of what the parts are, or how many there may be of each individual part, it is a dollar sale royalty, is that it? A. Yes.

Q. What about the Pacific Screw Products Company, how do they report?

A. The same way. They have showed nothing since the license has been in being, so they show that they manufactured no fitting, no royalties due, because no sales have been made.

Q. What is your experience with the Deutsch Company in connection with reports?

A. They show a number of fittings sold and sales volume. [555]

Q. Do you have any of those reports with you?

A. No, sir, I do not.

Q. Where are they located?

A. Cleveland, Ohio.

(Testimony of Charles H. Wagner, Jr.)

Q. Are they under your control?

A. Well, they are under the control of our comptroller.

Q. Is he above or below you in the hierarchy of the corporation?

A. He reports directly to our president, and so do I.

Q. You are on a par, then, maybe?

A. You might say so.

Q. If you were to request specimen copies, or, rather, specimens of those reports, you would be able to obtain them, I presume? A. Yes.

Q. Have you personally examined all of those reports as they come through to see what they contain?

A. No. Sometimes I don't even see them. They will go directly to the comptroller.

Q. Have you ever seen one in which the report listed a given number of parts as distinguished from a fitting assembly? A. I don't think so.

Q. You don't recall ever seeing one like that?

A. No. I can be wrong. As I say, they do not flow over my desk, of necessity. [556]

Mr. Huebner: Your Honor, I think I am almost through, but I didn't get a chance to look at letters 73-A, -B and -C, as they were on your Honor's desk, and I wouldn't touch anything there during the recess. May I look at them now?

No further questions.

Mr. Freeman: That is all for this witness.

I am going to ask Mr. Masters to take the stand.

IRVIN W. MASTERS

called as a witness by the plaintiff under Rule 43(b) of the Federal Rules of Civil Procedure, having been first duly sworn, was examined and testified as follows:

The Clerk: Your name, sir?

The Witness: Irvin W. Masters.

The Court: Are you calling Mr. Masters as an adverse witness?

Mr. Freeman: Yes, under 43(b).

Direct Examination

By Mr. Freeman:

Q. Mr. Masters, I asked you whether or not you would produce copies of letters that you forwarded to users of fittings under date of January 19, 1948, corresponding to the letter that I now hand you, and I am asking you now whether you have produced such letters.

A. I don't know, Mr. Freeman, if I have or not. I thought that we had. [557]

Q. I asked you to produce them, and you refused to produce them without being directed so to do by the court, and you are now in court and I am asking you to produce them.

A. I will. I don't have them here, though.

Q. Do you have enough identification from the letter I have given you? A. I know what it is.

Q. Do you have the letters?

A. I do not have them here, Mr. Freeman. I

(Testimony of Irvin W. Masters.)

didn't know that I was to produce them here. I thought it was asked for in the deposition.

Q. Do you recall that upon advice of counsel you refused to make them available to me?

A. I recall there was quite a bit of argument about the propriety of it then but, frankly, I don't remember the conclusion of it.

The Court: Have you got copies of them?

Mr. Freeman: I have one of the letters.

The Court: Then maybe Mr. Masters can bring them in court in the morning. We are not going to finish this case this afternoon. You will have plenty of time.

The Witness: I will do so.

Q. (By Mr. Freeman): Do you recall that I asked you for the list of the customers to whom such letters were sent [558] out? Do you recall that? A. Yes.

Q. And can you have that likewise in the morning?

Mr. Beehler: What letter was that?

Mr. Freeman: This one.

The Court: Well, I understand that is just one letter. There are other letters besides that.

Mr. Freeman: I understand this is a form letter that Mr. Masters sent out under date of January 19, 1948. I have asked him to produce the master copy of this letter and a list of the people to whom it was sent. I understand it will be available in the morning.

Mr. Beehler: I repeat again my objection to the

(Testimony of Irvin W. Masters.)

production of that on the ground that it has no relevancy to the issue here.

The Court: Well, of course, I don't know whether it does or not. I will read it.

How is this material, Mr. Freeman?

Mr. Freeman: My next question is, who did contribute toward the defense of this case, because under the authorities they that contribute are bound by whatever decision this court may render, and we want to show exactly from Mr. Masters if he did receive contributions and from whom. They seem to know all of the so-called infringers quite well.

The Court: Do you agree that is the law? [559]

Mr. Huebner: Not quite, your Honor. If the people who contributed voiced all or part in the control of the case, yes, but if they merely put up money in a pool, I don't think they are bound by it, unless they want to go in and intervene and submit themselves to the jurisdiction of the court.

The Court: Supposing, for instance, they did contribute. Can you establish the fact in the real case in interest, or do you have to bring an independent action to show they are bound? In other words, what I am getting at is this. Supposing you do have contributors, people who put up the money, who are actually fighting this case. Can that be shown now or should it wait until after the case has been determined and then have an order to show cause issued as to why they should not be bound by the decision? They are entitled to their day in court, and even though Mr. Masters will say, "Well, John Doe contributed," is that enough?

(Testimony of Irvin W. Masters.)

Mr. Huebner: I don't believe it is enough at this point of the proceedings. I think it would be a supplemental proceeding or some different proceeding, perhaps. I haven't had to meet this point before.

The Court: Mr. Masters is going to be here, and if he can produce the letters, I would like to have those, but first I would like to have you give me a decision upholding your contention that if the other parties are held, this is the time to establish their liability. [560]

Mr. Freeman: By the very answer Mr. Huebner has given, my question is made very, very pertinent and material. In other words, if they can ultimately show that they that contributed had no control over the suit, didn't participate in any way with the conduct of the suit, then they may be on the outside of the effects of any judgment rendered by this court, but we are entitled to establish now those that contributed towards this particular defense. They may have a defense ultimately that we haven't tied them up with the conduct of this particular suit.

The Court: Well, now, the question of whether or not they have actively participated in this case is a question of fact.

Mr. Freeman: Right.

The Court: And in this particular case we are trying out the question of the ownership of the patent. I don't think we ought to get in any extra issues in this case that we can keep out. If you will bring me a case that shows that that is the way to do it, I will be perfectly willing to go along with the

(Testimony of Irvin W. Masters.)

case. Otherwise, I am going to say that is a collateral issue and it is to be determined when first we have determined the violation of your patent rights. Supposing the court would decide that there has been no infringement? Then the fact that they contributed——

Mr. Freeman: Then every one of these other defendants, [561] if we brought suit against them, would say, "We have already been charged with infringement, we helped conduct this case." They want to sit on the fence and go both ways.

The Court: I don't know whether they did, but they would probably point to this case and say the matter has been decided, that is if we are sustained by the Circuit Court. You bring me the case and I will read it and then we will pass upon that.

Mr. Freeman: We will bring you a case. We are going to ask Mr. Masters to have available in court the master letter and the list which I have required.

The Court: Mr. Masters, you bring to court this information tomorrow and then we will determine whether or not it is pertinent.

Mr. Freeman: I am going to also ask Mr. Masters to produce his copy of the letter dated April 27, 1949, addressed to Larry Cunningham, Purchasing Agent of the Republic Aviation Corporation, Farmingdale, Long Island, New York. That letter was referred to during the taking of the Masters deposition as Plaintiff's Exhibit 12-A for identification.

Q. Will you bring that letter in the morning likewise, Mr. Masters? A. Yes, sir.

(Testimony of Irvin W. Masters.)

The Court: Do you understand what letter he is referring to? [562]

The Witness: Yes, I do.

Mr. Freeman: It was Plaintiff's Exhibit 10 in the deposition and it has here been referred to as Plaintiff's Exhibit 12-A for identification.

Mr. Beehler: We repeat our objection to the production of that letter also on the ground that it is immaterial.

The Court: When you bring the letter in, after we dispose of these other matters, we will dispose of that objection at the same time. I will reserve the ruling.

Q. (By Mr. Freeman): Mr. Masters, did you report to Industrial Resources Branch and Requirements Branch of the WPB your production facilities of Parker type fittings? A. Yes, I did.

Q. Did you report as an individual or as a corporation?

A. During the period I operated as an individual, I reported as an individual. When we were incorporated, I reported as a corporation.

Q. In 1943, February of 1943, were you an individual or a corporation?

A. We were a corporation in February, 1943.

Q. Did you ever have made available to you the confidential information contained on the Aircraft Report of the Industrial Resources Branch with respect to Parker type fittings? Have you ever seen any document of the kind corresponding [563] in

(Testimony of Irvin W. Masters.)

form to the one that I now hand you, Plaintiff's Exhibit 72?

A. I would like to see it. Yes, as a member of the Industry Committee, I received copies of all this material. [564]

Q. And did you ever take exception to the fact that your name was listed as I. W. Masters, an individual, not corporation? A. No.

Q. Did you ever take any exception to the fact that reference was made to Parker type fittings?

A. No, I don't believe that I maintained any serious objection to that.

Q. Did you ever take any exception to the term "Parker type fittings—includes AN"?

A. I don't understand your question, Mr. Freeman.

Q. Did you ever take any exception to the fact that the Parker type fittings included the AN?

A. I don't believe I ever made any observation concerning that at all.

Q. But you did have reports of the kind I have given you? A. Yes.

Mr. Freeman: That is all for Mr. Masters, and as far as we are concerned Plaintiff rests its prima facie case, with the understanding that we may have Mr. Masters for a moment or two tomorrow.

Mr. Huebner: Mr. Masters will be present in court.

The Court: And may I ask you another question before you rest? [565]

In the event, and this is supposition only and I

don't want anyone to think that I am indicating as to how my decision will be, but in the event a decision would be in favor of the plaintiff, and it came down to the question of damages, you are limited, are you not, to the time the corporation was incorporated?

Mr. Freeman: Absolutely, we can't reach from the corporation. Your Honor has had considerable experience in income tax matters, and when you talk about an individual income tax, that is one thing, and when you talk about a corporation's income tax, that is another thing. One is not responsible for the other, or vice versa. And as far as we are concerned we only have, as far as this defendant is concerned, from the date of its incorporation.

The Court: I wanted to be sure that we understood that, because the consent was given to the individual and not to the corporation.

Mr. Freeman: That is correct. We can't reach beyond that.

With that statement, plaintiff rests its prima facie case.

The Court: I wanted to be sure that we understood that.

You have twenty minutes to get started in this afternoon.

Mr. Huebner: Mr. Beehler, I think, will take on from here for a while, your Honor. [566]

Mr. Beehler: Mr. Masters, will you take the stand please?

IRVIN W. MASTERS

called as a witness by and on behalf of the defendants, having been previously sworn, was examined and testified as follows:

Direct Examination

By Mr. Beehler:

Q. Mr. Masters, you are presently engaged in the manufacture of fittings; that is correct, is it?

A. That is correct.

Q. And your place of business is located where?

A. 1060 North Lake Street, Burbank, California.

Q. How long have you been engaged in the manufacture of fittings?

A. As a corporation, since October 1, 1942; as an individual, since about the middle of 1940.

Q. During that entire period the manufacture of fittings consisted of the manufacture of three-piece fittings for aircraft, is that correct?

A. Not altogether, but largely.

Q. Prior to your engagement in this business, what business were you connected with?

A. Just prior to that I had been aircraft sales and engineering representative of Flexitube Company. From the [567] middle of 1938 we manufactured flexible hose assemblies, and also we used fittings in connection with those assemblies.

Q. Then immediately prior to that were you not engaged by the government in some work in connection with fittings?

(Testimony of Irvin W. Masters.)

A. Immediately prior to that for about a year I was in general consulting engineering work and was with the Weatherhead Company for a few months in the same line of work, developing of fittings and sale to the government. Prior to that I was with the Bureau of Aeronautics, Navy Department, for a period of about three years, in the specification section.

Q. While you worked for the government what, approximately, were your duties in connection with fittings and couplings?

A. I had charge of fuel and oil line specifications, fuel tanks, oil tank specifications, and screw machine products for the Bureau of Aeronautics. The larger part of my time, however, was spent in developing a non-proprietary fitting for the use of the Navy.

Q. When you speak of a non-proprietary fitting, what do you mean by that?

A. One that was owned by the government and not subject to restrictions as to where they might buy them or have them manufactured.

Q. During that period did you or did the department [568] develop specifications for a non-proprietary fitting?

A. Yes, through a period of about a year we continued research, which had been started in 1932, to ascertain what was needed in fittings, and we established the formula and design of first the NAF fitting, and the formula that is used in the design of the AN fittings.

(Testimony of Irvin W. Masters.)

Q. What is the NAF fitting?

A. The NAF fitting is a two-piece fitting, which we refer to as a two-piece fitting. It fits on a body and has a flare and a nut, flare on the body, for the clamping of a flared tube without the use of a sleeve.

Q. Was the NAF fitting actually manufactured?

A. Yes, it was manufactured.

Q. Was it used in aircraft?

A. It was used in Naval aircraft for a period of time, and has been continued to be used in some of the older ships that are not now active.

Q. Directing your attention to the business which you are now engaged in, you manufacture, as I understand it, bodies, sleeves, and nuts, is that correct?

A. That is correct.

Q. Will you state for the record approximately what proportion of your business consists in the manufacture of bodies?

A. Currently I would say that valuewise, dollar-wise, [569] that 98 per cent of our business is bodies.

Q. The remaining portion is divided about how?

A. Well, that is a guess. I didn't anticipate this question. But I would say that half and half nuts and sleeves.

Q. When you receive orders for the parts that you manufacture, how do the orders read, with respect to the designation of the parts?

A. They are ordered by parts.

Q. By bodies separately?

A. Bodies, sleeves, and nuts, separately.

(Testimony of Irvin W. Masters.)

Mr. Beehler: Inasmuch as we will have considerable reference to certain standard specifications, I wish to offer in evidence now a set of drawings as follows:

Drawing AND 10061, AN 818, AN 819, AND 10056, AN 817, AND 10064, 811T, 811BT, 811FT.

The Court: Is there any objection?

Mr. Freeman: No. Some of these are Parker drawings; I couldn't object to them, your Honor.

The Court: They may be received.

The Clerk: As one exhibit, or individually?

Mr. Beehler: I suggest they be marked individually for convenience in identification.

The Clerk: The next is H.

Mr. Huebner: All alphabetically in alphabetical order? [570]

The Clerk: H, I, J, and K. There are four different ones here, that I have.

Mr. Huebner: There were more than that.

The Clerk: There is one here in a group. Do you want these separately here?

Mr. Beehler: Yes, I think you had better identify them separately.

Mr. Freeman: There are nine of them.

The Clerk: We will have H, and H-1 and H-2, H-3, H-4, and H-5, I, J, and K. In the group of H, there are six of them, H and H-1 to H-5, which is AND10061, AN818, AN819, AND10056, AN817, and AND10064; and we have three photostatic copies here, which will be marked I, J, and K.

(Testimony of Irvin W. Masters.)

(The documents referred to were marked H, H-1, H-2, H-3, H-4, and H-5, and I, J, and K, of the Defendants, and were received in evidence.) [571]

Mr. Beehler: If Mr. Freeman has no objection, I have three Parker drawings which I would like to also introduce at this time.

The Court: What were these first drawings? I thought they were Parker drawings.

Mr. Beehler: These are additional drawings of earlier date.

Mr. Freeman: If you will just tell me where you got the Parker drawings, which are marked "Vault Copy, Do Not Use," I will be glad to tell you whether I will let them in or not.

Mr. Beehler: These were secured by court order from the Parker files.

Mr. Freeman: You certainly can introduce them then, young man.

The Court: All right.

Mr. Beehler: I also offer in evidence the following drawings, No. 2-1835.

The Clerk: That will be L.

(The drawings referred to were marked Defendants' Exhibit L for identification.)

Mr. Beehler: No. 2-1835-1.

The Clerk: M.

(The drawing referred to was marked Defendants' Exhibit M for identification.) [572]

(Testimony of Irvin W. Masters.)

Mr. Beehler: No. 2-1835-2.

The Clerk: That will be N for identification.

(The drawing referred to was marked Defendants' Exhibit N for identification.)

Mr. Beehler: I offer those in evidence.

The Court: They will be admitted in evidence.

(The drawings referred to were received in evidence and marked Defendants' Exhibits L, M, & N.)

Mr. Beehler: I wish also to have marked for identification Defendants' exhibit next in order consisting of a drawing identified as Section No. 1.

The Clerk: That will be Defendants' Exhibit O for identification.

(The drawing referred to was marked Defendants' Exhibit O for identification.)

Q. (By Mr. Beehler): Having reference, Mr. Masters, to drawing No. AN 819, by way of example, will you explain for the purpose of the record what the designation means there in column B on the drawing where it reads "Plus $\frac{3}{1000}$ ths minus $-.000$ diameter."

A. Column B is the internal diameter of the cylindrical portion of the sleeve. The figures in that column are the basic dimensions which may not be smaller than that, but may be $\frac{3}{1000}$ ths larger on the diameter. The plus $\frac{3}{1000}$ ths means that is the tolerance of $\frac{3}{1000}$ ths of an inch. [573]

Q. Will you state for the record what is the im-

(Testimony of Irvin W. Masters.)

portance of tolerance in manufacturing drawings?

A. It is impossible to manufacture parts to 100 per cent perfection, that is, to maintain exactly a certain dimension, because of tool wear, spring in the machines, spring in the materials, so it is necessary to have certain range of dimensions which will be satisfactory, and yet the parts go together properly to be interchangeable with other parts of the same—go together properly with the mating parts and to be interchangeable with other parts of the same design.

Q. Now, will you compare tolerance with clearance and tell us what a clearance is and what the difference is between a clearance and a tolerance?

A. A clearance would be a space between two parts that are considered mating parts, but between which there must be a space in order that there will be not an interference, and the tolerance is the range of dimension that may be applied to the mating parts and yet maintain that clearance when they are assembled.

Q. Then a tolerance applies to the dimensions permissible upon a single part?

A. That is right.

Q. And the clearance as to the dimensional difference between the size of one part and the size of another [574] part, is that correct?

A. That is right. There may be a maximum clearance and a minimum clearance.

Q. Now, Mr. Masters, will you refer to the chart hanging on the blackboard there, copies of which

(Testimony of Irvin W. Masters.)

have been distributed, identified as Section No. 1.

Who was it who made the chart?

A. I drew that chart.

Q. Is the chart drawn to scale?

A. Yes. It is drawn to exact scale. The drawing hanging there is 20 times as large as the actual size of the charts represented.

Q. There are some squares on the drawing, some small squares. How many thousandths of an inch are represented by the small squares on the chart?

A. The smallest squares on the chart in the 20 to drawing represent $5/1000$ ths of an inch.

Q. And then there are some larger squares.

A. The larger squares have 10 lines each way and they are $50/1000$ ths of an inch.

Q. Directing your attention, Mr. Masters, to the green-colored portion of the chart identified by a lead line as AND 10056 standard fitting end, where did you get the dimensions for that part which you drew on the drawing?

A. I got those dimensions from the government Army [575] and Navy design drawing 10056.

Q. Directing your attention to the blue-colored part labeled AN 818 nut coupling, where did you get the dimensions that you used for that portion of the drawing?

A. I got that from the Army-Navy drawing AN 818.

Q. Referring to the red-colored portion of the drawing designed AN 819, sleeve coupling, where

(Testimony of Irvin W. Masters.)

did you get the dimensions which you used for that portion of the drawing?

A. From Army-Navy drawing 819.

Q. AN 819?

A. That is right, and AN means Army-Navy.

Q. Referring to the yellow-colored portion of the drawing labeled AND 10061 standard tube end flare, where did you get the dimensions which you used for that portion of the drawing?

A. From the Army-Navy design drawing 10061.

Q. With respect to the AND 10056 part, the AN 818 part, and the AN 819 part, it is true, is it not, that the corresponding parts which you manufactured are made to those same dimensions?

A. That is correct.

Q. With respect to the drawing, particularly the sleeve head of the part, AN 819, and the surrounding portion of the nut, AN 818, is it or is it not shown there is a clearance between those parts, particularly in the region of [576] the sleeve head?

A. There is a clearance.

Q. What is the magnitude of that clearance?

A. The magnitude of the clearance is dependent upon the diameter, but the minimum clearance at the large end of the sleeve is 50/1000ths on the diameter in the small size and 7/1000ths on the diameter in the largest size.

Q. Calling your attention to AN size 8, which I believe is the proportion in the drawing of Section No. 1, what is the tolerance?

A. The tolerance or clearance?

(Testimony of Irvin W. Masters.)

Q. Thank you. The clearance.

A. The clearance on the diameter at the large end of the sleeve, back against the shoulder, the minimum clearance is 6/1000ths.

Q. The maximum clearance is what?

A. One moment, please. The maximum clearance would be 12/1000ths.

Q. And that is a clearance before tightening?

A. That's right.

The Court: I think the clock says it is time to quit, so I think we will recess now until 10:00 o'clock in the morning.

(Thereupon, at 4:00 o'clock p.m., an adjournment was taken to 10:00 o'clock a.m., Thursday, June 22, 1950.) [577]

Thursday, June 22, 1950. 10:00 A.M.

The Clerk: Further trial.

The Court: You may proceed.

Mr. Beehler: Mr. Masters, take the stand again.

IRVIN W. MASTERS

called as a witness on behalf of the defendants, having been previously sworn, resumed the stand and testified further as follows:

Direct Examination (Continued)

By Mr. Beehler:

Q. When we recessed yesterday, Mr. Masters, we were speaking of the amount of clearance on the

(Testimony of Irvin W. Masters.)

No. 8 size AN fitting, which you said was from 6/1000ths to 12/1000ths of an inch. Will you refer, please, to the AN drawing under 818, in company with AN drawing No. 819, and point out expressly on those drawings the figures which determine those two clearances? I refer to Defendants' Exhibit H-1 and Defendants' Exhibit H-2, and I suggest for the court that you put a circle around the dimensions which you use to determine the clearances specified. Will you state, Mr. Masters, what your computation is from those figures that you use to determine those two clearances?

A. On drawing AN 818 the internal bore of the nut on the [579] 8 size is shown as 688/1000ths; on drawing 819, the external diameter of the head, that is, the sleeve head, is 682/1000ths. That is a clearance of 6/1000ths. But the sleeve head may be 3/1000ths smaller than that and the bore of the nut may be 3/1000ths larger than that indicated as the basic dimension, so the minimum clearance may be 6/1000ths and the maximum may be 12/1000ths.

Q. Then any clearance in between those figures is acceptable as a satisfactory fitting, according to the specifications, is that correct?

A. That's correct.

Q. You mentioned that this was for No. 8 size. Do the clearances vary from one size to another?

A. Yes. There isn't a very great variance. On the smallest size, which is the -2 size, the minimum clearance is 5/1000ths. On the 32 size, which is a

(Testimony of Irvin W. Masters.)

2-inch tube fitting, the minimum clearance is 7/1000ths.

Q. Will you state for the record what these numbers mean as to size; what does No. 8 mean?

A. No. 8 means that it is used on an 8/16ths tube, that would be a $\frac{1}{2}$ -inch tube. The dash numbers indicate the size of the tube in 16ths.

Q. Do the tolerances vary with different sizes of the fittings?

A. No, there is no variation in the [580] tolerance.

Q. At the toe of the sleeve of the No. 8 size, which is pictured on Section No. 1, what is the clearance there?

A. The clearance on the diameter is 12-9/10/-1000ths. The radial clearance or that shown in the illustration would be half that amount. [581]

Q. How do you figure a clearance at the toe?

A. The clearance at the toe is increased by reason of the tapering of the head. The largest diameter of the head is 10/1000ths of an inch from the shoulder of the head by reason of the 10/1000ths chamfer, and the smallest diameter on the outside of the head is 10/1000ths from the toe by reason of the 10/1000ths chamfer. So the length of the inclined portion on the head there would be 20/1000ths less than the dimension J in the drawing 819.

Then taking that dimension J less 20/1000ths would give you for the length of that line 199/-1000ths. Multiply that by the tangent of a 1 degree angle, which is .0175, to get the amount of the reduction on the radial dimensions.

(Testimony of Irvin W. Masters.)

Q. I take it, then, to find that clearance, it must be calculated rather than selected from a drawing, is that correct? A. That's right.

Q. What is the permissive variation in accordance with the drawing in the degree of the angle on the outside of the sleeve head?

A. On the AN fitting—well, on all the fittings, plus or minus $\frac{1}{2}$ degree.

Q. Will you, on the drawing AN 819, put a circle around the tolerance permitted in the angle?

A. I have done so. [582]

Q. Further, with reference to Section 1, I direct your attention to the diameter of the sleeve behind the shoulder, the small cylindrical portion of the sleeve. Will you state for the record with reference to No. 8 size, what the clearance is between the small portion of the sleeve and the surrounding portion of the nut?

A. The nominal bore of the flange portion of the nut is 570/1000ths. The nominal outside diameter of the cylindrical portion of the sleeve is 562/-1000ths. That would be a clearance of 8/1000ths at the minimum.

The outside diameter of the cylindrical portion of the sleeve might be within the tolerance, might be 3/1000ths less than that, and the bore of the flange section of the nut might be 3/1000ths more than the nominal, which would allow a maximum diametrical clearance of 14/1000ths of an inch. That would be 7/1000ths radial clearance.

Q. On Section No. 1, Mr. Masters, I direct your

(Testimony of Irvin W. Masters.)

attention to the sleeve head, and I ask you what portion of the sleeve head strikes the flare of the tubing first?

A. Well, the internal cone on the sleeve head is 32 degrees and the external conical flare on the tube is 33 degrees, so I can't say that any part strikes first. It is a surface contact.

Q. Why is the angle on the external surface of the flare of the tube made to the angle shown there? [583]

A. Well, that is the specified angle on the Army-Navy design drawing 10061.

Q. Will you place a circle around the portion of that drawing from which you take the figures that you mentioned? A. I have done so.

Q. With respect to the same drawing, AND 10061, will you also place a circle on that drawing of Fig. 1 and determine how wide the flare should be at the widest part? A. I have done so. [584]

Q. Is or is not the dimension important in the making up of the coupling? A. Yes.

Q. Why is that?

A. If it is too large, it will interfere with the inside diameter of the nut; and if it is too small, you don't get sufficient seating surface.

Q. What happens when you attempt to uncouple a coupling made with a flare that is too large?

A. It would very likely engage the threads and the nut wouldn't come off, it wouldn't slide back.

Q. Referring once again to drawing AND 10061, and calling your attention to the angles indicated

(Testimony of Irvin W. Masters.)

there at 33 degrees and 37 degrees in the sketch, tell us if you know why those particular angles were selected.

A. The angles 37 and 33 degrees were taken over in the AN designs and standardization from the NAF fitting, which was the Navy standard, prior to the adoption of the AN standard, and the purpose of the adoption of that 37 degrees in the NAF standard was to get a maximum possible holding power on the flare. This flare is out at a greater angle than the fittings which were previously used, and yet the spread of the angle was confined to an amount that was well within the ability of the materials used to elongate by that amount. The 33 degrees as against the 37 degrees is the amount of the [585] natural flaring out of the tube. As you flare the tube the thickness of the flare at any one point is just about inversely proportional to the diameter at that point.

Mr. Beehler: I offer in evidence as Defendants' O the enlarged sketch of Section No. 1.

The Court: It may be received.

(The document referred to was marked Defendants' Exhibit O, and was received in evidence.)

Mr. Freeman: Could I ascertain the amount of reduction in the photostats that you have given us and have given the court, with respect to cross-section No. 1, Defendants' Exhibit O, because when we look at the drawing and it says "Scale 20 to 1,"

(Testimony of Irvin W. Masters.)

that is an inaccurate statement as we view these drawings. So we must know the relative proportion of reduction. Otherwise these drawings evaluate very, very little.

Mr. Beehler: May I suggest that while we do not know exactly what the reduction is, the figures which are significant on the drawings are not what the pictures show, but what the figures reveal, taken in connection with the AN standard drawings.

Mr. Freeman: I don't find any figures of sizes on here at all. All I can do is look at it and determine that the scale is 20 to 1, on the one I have and the one the court has.

Mr. Beehler: We have just given testimony which directs [586] attention to specific figures, as to precisely what the distances are. Our testimony with respect to clearances gave a maximum clearance and a minimum clearance, and both apply to the drawing, and the figures given in the testimony.

Mr. Freeman: Do I understand, then, that the 20 to 1 means nothing and we are to disregard it?

Mr. Beehler: The 20 to 1 is the scale to which Section No. 1, Defendants' Exhibit O, was drawn.

Mr. Freeman: I am asking you, then, to tell me what the scale is on the one you have given me and the one you have given to the court, which will be the one we will have to work from.

Mr. Beehler: The photostatic reproduction, I do not know what the scale is.

Q. (By Mr. Beehler): Directing your attention, Mr. Masters, to colored Section No. 2, Defendants' Exhibit P.

(Testimony of Irvin W. Masters.)

(The document referred to was marked Defendants' Exhibit P, for identification.)

Q. (By Mr. Beehler): Rather, will you state for the record what drawings you used in reproducing that particular section?

A. The drawings used in producing this were the Army-Navy drawings 818, the Army-Navy drawings 819, that is AN 819, the Army-Navy design drawings AND 10061, and the Army-Navy design drawing 10056. [587]

Q. Those drawings, then, were the same as those used in connection with Defendants' Exhibit O?

A. That is right.

Q. Who made this drawing, Section No. 2?

A. I made it.

Q. To what scale did you make it?

A. The drawing is 20 to 1.

Q. What does that particular drawing represent?

A. This represents the Douglas modified sleeve wherein the heel of the sleeve has been removed by a reworking or redesign with an $18\frac{1}{2}$ -degree secondary angle. [588]

Q. What size does that particular sketch depict?

A. This is a -6, $\frac{3}{8}$ tube size.

Q. Why did you select a No. 6 size for that particular drawing?

A. Well, I don't know why I selected a 6 as against any of the others between 2 and 6, but I selected it to illustrate the condition with those sizes.

(Testimony of Irvin W. Masters.)

Q. What sizes were you at liberty to select for that particular arrangement of parts?

A. The 2, the 3, the 4, the 5, or the 6, in the copper silicon sleeves.

Q. Does that refer then only to copper silicon sleeves? A. That is right.

Q. Are there sleeves made of other metals to which that particular arrangement would not apply?

A. That is right. The steel sleeve with steel assembly would not apply to this.

Q. The steel sleeves would apply then to which of the two sections which we have referred to so far?

A. All sizes of the steel sleeves would apply to Section No. 1.

Q. That is Defendants' Exhibit O?

A. That is right.

Q. You mentioned the re-working angle as being $18\frac{1}{2}$ [589] degrees. From your examination of those figures, how much of the internal flared surface of the sleeve head is removed by making a cut of $18\frac{1}{2}$ degrees as set forth in the specifications and as represented on the drawing?

A. About 50 per cent. That is 50 per cent of the original internal flare, referring to Section 1 as the length of the original internal flare.

Q. With respect then to the contact of the sleeve head of the No. 6 size with the flare of the tubing, what portion of the sleeve head strikes the flare first?

A. The contact between the sleeve and the flare

(Testimony of Irvin W. Masters.)

on the tubing on the 6 size would run from the end to about from 20 to 30 thousandths of an inch from the end.

Q. What proportion of the available surface of the sleeve on the 6 size strikes the flare on the tubing first?

A. Well, about a third of the distance back to the heel that now remains after the modification would be in contact. Areawise, it would be slightly less than that, I believe.

Q. And that area is about half of the initial area before the cut-off, I believe you said?

A. That's right.

Q. Adjacent what part of the flare does that area strike?

A. It strikes a little both sides of the midsection [590] of the flare, I believe; slightly more toward the outer side of the midsection of the flare.

Q. Have you made a determination, Mr. Masters, of the clearance between the largest portion of the sleeve head of the No. 6 size depicted on Defendants' Exhibit P and the surrounding wall of the nut?

A. Yes, I have.

Q. Will you state what the clearance is?

A. Do you mean a physical measurement?

Q. The physical measurement taken from the AN specification and before tightening.

A. One moment, please. At the large diameter of the head, the minimum clearance is 6/1000ths. The maximum clearance is 12/1000ths.

Q. Will you, on the same AN drawings 818 and

(Testimony of Irvin W. Masters.)

S19. encircle the figures which you used to make the determination that you just gave in your last answer.

A. I have done so.

Q. We have referred here, Mr. Masters, to AN specifications. Will you tell the court where those specifications originated, if you know?

A. Well, they are specifications that have been agreed upon by the Army and the Navy for materials that are used by both services interchangeably.

Q. Were they determined by any single body, or were [591] they the joint determination of many persons and factions?

A. They were the joint determination of many persons in many conferences over several years.

Q. How were clearances arrived at in the Army-Navy specifications?

A. The tolerances follow standard engineering practices as are employed throughout the other industries. These happen to fall in the range that are called class 3 fits here.

Q. How were clearances arrived at in the Army-Navy specifications?

A. The necessary clearances, I believe, were conclusions of years of experience as to what worked well and what did not. [592]

Q. How were angles arrived at in the Army-Navy specifications?

A. As previously testified to, the angles on the flare followed the angles set up in the Navy standards called the NAF fitting. The Navy, in the first

(Testimony of Irvin W. Masters.)

place, had cognizance of fitting design and development under the Army-Navy standardization program.

Q. How was the selection of threads arrived at in those same specifications?

A. The decision upon the threads was the same, they followed the same threads, I believe, throughout, with one or two exceptions, that were employed in the NAF fitting. But those threads in the NAF fitting were standard threads, class 3 standard, throughout the industry.

Q. Is there any Army-Navy specification with regard to the torque that should be used on fittings of that description? A. Yes, there is.

Q. How was that arrived at?

A. I have no direct personal knowledge of the steps that were taken to arrive at those exact figures, but there was a great deal of trouble with over-torquing of fittings throughout the years, and I presume that it was necessary to set up values to make the fittings work satisfactorily.

Q. In your testimony yesterday, Mr. Masters, you [593] mentioned a non-proprietary fitting. What bearing does that have, if any, upon the Army-Navy fitting?

A. The Army-Navy procurement program was very much hampered at different times by limited sources of items which were much used by the Army and Navy, and there was a concerted effort over many years to develop standards which could be bought in the open market without restricted sources.

(Testimony of Irvin W. Masters.)

Q. Is or is not the Army-Navy standard fitting, then, in your opinion, a non-proprietary fitting?

A. It is.

Q. In our discourse, Mr. Masters, we have had much reference to the details of construction of the fittings of this kind, and there has been conversation as to whether or not you, as a manufacturer, supply an assembly with or without the tube. Will you state just very briefly for the record how these three parts are put together on a tube in order to arrive at the arrangement illustrated there in Defendants' Exhibit P, for example?

A. At the place where the fitting is used the tubing which is connected by the parts or couplings is cut to the desired length, and very often bends are made in it to enable them to connect the parts as they are located in the ship or equipment that the tube is going in, and very often they have to be bent several places to go around various [594] pieces of equipment that lie between, for instance, the engine that they may want to connect, with a supply of fluid from some other point. After cutting the tube and making the necessary bends and making the ends of the tube smooth, the nuts are slipped on each end of the tube, one nut on each end, then the sleeve is slipped on and the flare made.

Q. What do you use to make a flare customarily?

A. Well, in plants where considerable production is under way they have flaring machines, which have a conical pin, the angles on which are the same as the internal angle on the flare, and that operates

(Testimony of Irvin W. Masters.)

in a machine which rotates the axis of the pin, causing an eccentric movement inside the tube, and outside the tube is a split die, and the tube is flared out against that die by the eccentric rotating pin.

Q. Utilizing machines of that kind is there or is there not any appreciable variance in the angles produced on the flares made by them?

A. There is not any appreciable variance in the angles made in a given set of tools.

Q. Are there any tools other than the machine flaring tool that you mentioned used for that purpose?

A. Yes, there are hand flaring tools which are in different forms, but essentially the same thing. They are usually a pin that is simply hammered into the end of the [595] tube to form the flare.

Q. Is there or is there not any variance in the resulting flare made by tools of that description?

A. There is expected to be more variance in the diameter, but not in the angles.

Q. After the flare has been made on the tubing in the example which you have been describing, what is the next thing done in order to complete the fitting assembly?

A. Then the nuts are screwed on the bodies which are secured in the pieces of equipment that are desired to be connected.

Q. How does the mechanic know how hard to screw the nut on the body?

A. There are specifications which the government has issued showing the twisting effect or torque that

(Testimony of Irvin W. Masters.)

is necessary to make a good seal and yet not damage the fitting.

Q. Is that twisting effect the same, or not the same, for tubing of different metal characteristics?

A. Usually a higher torque, or always a higher torque is used on a steel tube than on an aluminum tube. The practice is not perfectly uniform in that respect. Some companies who are users of fittings torque the steel fittings much tighter, to a greater magnitude, than do others. [596]

The Court: May I ask a question? A mechanic putting these fittings together, how is he to know when he has reached the proper torque?

The Witness: Well, your Honor——

The Court: By feel alone?

The Witness: No. They have calibrated torque wrenches. We have some here, if you would like to see them. There are two different kinds that I am familiar with. One torque wrench has a dial on it, which indicates by the position of the hand how hard he is turning it. The other that I am familiar with clicks when it reaches the desired torque.

The Court: The wrench itself indicates, rather than the feel of the operator?

The Witness: Yes.

Q. (By Mr. Beehler): Without a torque wrench handy, what would determine how tight the mechanic might screw the nut on the body?

A. His judgment entirely.

Q. Referring once again to Section 1, Defendants' Exhibit O, in your observation, what happens

(Testimony of Irvin W. Masters.)

at the large end of the sleeve when the coupling is coupled together, using a recommended torque?

A. Well, it expands very little. Often it expands not any measurable amount. At the shoulder, you are asking. [597]

Q. Does it expand enough to take up the tolerance initially provided?

A. I have not found it to do so.

Q. Is your answer the same or different with respect to colored Section 2, Defendants' Exhibit P?

A. That's right, it is the same.

Mr. Beehler: Will you mark this as Defendants' Exhibit Q for identification?

(The document referred to was marked Defendants' Exhibit Q for identification.)

Q. (By Mr. Beehler): I wish to call your attention to another colored section, colored Section No. 3, which I have requested be marked Defendants' Exhibit Q, and I ask you, Mr. Masters, who made that particular drawing? A. I made it.

Q. Where did you get the information which you used in making that drawing?

A. The blue section is the nut. That was made from the current Air Corps 811 BT drawing.

The red section is the sleeve. That was made from the current Air Corps 811 T drawing of the sleeve.

The green section, which represents the fitting end, was made from the Air Corps 811 fitting drawing. These are to a -8 size.

The flare on the sleeve, I took from page 82 of

(Testimony of Irvin W. Masters.)

the [598] Parker's 1943 installation manual, which shows the angles for flaring sleeves, or for flaring tubes.

Q. In the No. 8 size, which you selected and of which this is a drawing, will you, by reference to the AC 811 drawings, read the figures which you used to determine the clearance between the large end of the sleeve and the interior wall of the nut?

A. These are kind of fine. I might have to use my magnifying glass here. These are on the BT nut. The F dimension is the bore of the nut.

On the 811 T drawing, the G dimension on the outside diameter of the sleeve head, the outside diameter of the sleeve head is given as 682/1000ths and the inside diameter of the nut is given as 690/1000ths. The inside diameter of the nut—

Q. That, then, is a nominal clearance of 8/1000ths, is that correct? A. That's right.

Q. And the maximum and minimum clearance—

A. Pardon me, Mr. Beehler. There is 3/1000ths clearance nominal.

Q. The maximum and minimum clearance then for that particular size would be what?

A. There is a 3/1000ths tolerance on each part, which would give a maximum clearance of 6/1000ths more than [599] that just stated or a maximum clearance of 13/1000ths.

Q. In your experience, in tightening assemblies of this particular kind, what has been your observation with respect to the extent of expansion of the sleeve head at the large end?

(Testimony of Irvin W. Masters.)

A. It is practically nil.

Q. In your experience, has there ever been enough to fill the nut within which it is contained?

A. Only when excessively over-torqued.

Q. With respect to specified torques, it would not expand, then, is that correct?

A. Not in my experience.

Q. Directing your attention to the internal flare on the sleeve head of the colored Section No. 3, Defendants' Exhibit Q, in your opinion, what part of the sleeve head strikes the flare on the tube first?

A. The heel of the internal bore of the sleeve strikes the base of the flare first.

Q. And adjacent what portion of the flare does the heel strike?

A. At the smallest diameter of the flare.

Q. And by reference to the drawing 811—drawing for the sleeve—can you determine from an inspection of that drawing when the sleeve head angle was added?

A. No, I cannot tell just what day it was added in [600] this drawing. There are three changes shown on the drawing, '41, '42, '43. [601]

Q. What is the usual practice with regard to changes in drawings?

A. Well, I don't believe, Mr. Beehler, that practices are uniform. In working drawings changes are noted on the drawings, and they refer to change notices. This is not clearly revealed here just what the changes were; it simply states the dates changes were made.

(Testimony of Irvin W. Masters.)

Q. Then, it is true, is it not, that the figures on the drawing may not necessarily represent the drawing as it was at the date the drawing was initially drawn, as indicated in the title blocks appearing on the drawing? A. That's true.

Q. Do you have any knowledge, Mr. Masters, of where the AC-811 sleeves might be used today in aircraft work?

A. Well, the only knowledge that I have is among my customers.

Q. Do you know any airplanes that use the AC-811 fittings?

A. The Constellation and the P-38 made by Lockheed still use 811 bodies and nuts, but they do not always use 811 sleeves.

Mr. Beehler: I offer in evidence as Defendants' Exhibit Q the colored section No. 3.

The Court: It may be received. [602]

(The document referred to was marked Defendants' Exhibit Q, and was received in evidence.)

Mr. Beehler: Will you mark for identification another colored section, captioned No. 4, as Defendants' Exhibit R?

(The document referred to was marked Defendants' Exhibit R, for identification.)

Q. (By Mr. Beehler): Mr. Masters, who made the colored section, Defendants' Exhibit R?

A. I made that.

Q. What scale was that made to?

(Testimony of Irvin W. Masters.)

A. May I look at the drawing closely? I am not sure.

Q. Surely.

A. Some I made to different scales.

(Witness approaches exhibits.)

The Witness: That was 20 to 1.

Q. (By Mr. Beehler): What kind of a fitting was that intended to represent?

A. This represents an 811-6 copper silicon sleeve assembly.

Q. Where did you secure the information which you used to make the drawing of the green section there indicating the body?

A. I used the 811ET body detail.

Q. What did you use for the representation of the nut? A. The 811BT drawing. [603]

Q. And for the representation of the sleeve?

A. The 811T drawing.

Q. And what figures did you use in order to draw in the representation of the flare on the tube shown in yellow?

A. I used the figures from Parker's Manual of Maintenance of Aircraft Tube Assemblies, the figures on page 82, and the outside angle was not shown there, so I ascertained that from computation which I confirmed by reference to the Lockheed Manual.

Q. The parts of the coupling as they are shown are in untightened condition, are they?

A. That is right.

(Testimony of Irvin W. Masters.)

Q. What is the clearance which you found to be the case in that assembly between the largest end of the sleeve head and the surrounding wall of the nut?

A. 7/1000ths minimum; 13/1000ths maximum.

Q. Have you had any experience in tightening couplings of that particular sort?

A. Yes, I have.

Q. What did you find to be the expansion at the large end of the sleeve of the couplings after being tightened in accordance with recommended torque?

A. Mr. Beehler, I do not have the figures here for the 811 6 size.

Q. Was the expansion enough to fill the inside of the [604] nut? A. No, it was not.

Q. Directing your attention now, Mr. Masters, to the free end or small end of the sleeve, what portion of the sleeve strikes the exterior of the flare on the tubing, first?

A. Well, the first contact of the sleeve on the outside of the flare would be a line contact at the juncture of the two cones which are on the inside of the sleeve.

Q. And that is adjacent what portion of the flare on the tubing?

A. By this scale it would be less than half the distance up the flare from the base.

Q. That will be adjacent the outside end, or the inside, end, or the middle?

A. It would be adjacent the middle of the flare, but nearer the inside end than the outside. [605]

(Testimony of Irvin W. Masters.)

Q. Are you aware, Mr. Masters, of any permitted mixing of the parts of the AN fittings with the 811 fittings?

A. Yes. There is considerable interchangeability permitted. I wouldn't remember in the different sizes, because it is quite mixed up. Generally speaking, however, AN flares and sleeves are used where substitution is required, but they may use the AN sleeve, and do extensively, and AN flares, with AC bodies and nuts.

Q. I call your attention, Mr. Masters, to a manual captioned "SAE Aeronautical Information Report No. 1," dated January 1, 1943, and I would like to read a brief section of that from page 1, column 2:

"B, sleeve nuts. The AN817 sleeve nut is interchangeable with the AN818 nut and AN819 sleeve combination. However, tests show that the nut and sleeve combination will permit closer tube bend, more repeated disassembly and reassembly, and more wrench torque.

"C, nuts. The 811 BT 2, 3, 4, 28, and 32 nuts can be used on the AN standard fittings. The AN818 nuts are slightly larger and therefore cannot be used on the AC811 series fittings."

Do you subscribe to that recommendation of interchange of parts? [606]

A. Generally speaking, it is considered inadvisable for the reason that while some interchange is possible, it is hardly feasible for even one quite

(Testimony of Irvin W. Masters.)

familiar with the fittings to remember which may be interchanged. It is recommended that where possible the parts of a single series should be used.

Q. Directing your attention once again to colored Section No. 4, do you know any place in the aircraft industry where that combination is used?

A. Yes. This particular 6 size of the AC811 fitting has such an acute angle, as compared with the AN fitting, that it is—where the AC 6 bodies and nuts are used, they must use the AC flare and the AC copper silicon or aluminum bronze sleeve.

Q. There was mention in that suggested combination an AN817 sleeve nut. Can you tell us about what kind of a nut that is?

A. The AN817 is a nut and sleeve combined. That is the one we commonly refer to as being used with a two-piece fitting. It is a nut with an elongated smaller portion or neck, which has a conical surface internally between the threaded portion and the cylindrical portion of the extended sleeve. The sleeve and nut combined is what it is.

Q. Do you recall in connection with the 817 sleeve the pitch of the flare on the inside of the nut?

A. Yes. It is 33 degrees. [607]

Q. Do you recall what the pitch of the angle is on the nose of the body, which is regularly used with that nut?

A. That is 37 degrees.

Q. Is or is that not in your opinion a differential angle?

A. That is my understanding of what is meant when differential angle is referred to.

(Testimony of Irvin W. Masters.)

Q. In coupling together an 817 nut with a body wherein the angles have the relationship which you just recited, what portion of the flare on the inside of the nut would strike the flare on the tubing first?

A. There I can't say that any part strikes first. It is a surface contact. The inside cone of the nut is 33 degrees. The outside cone of the tubing flare is 33 degrees. So it would be a surface contact. You can't say any particular part of the flare would touch first.

The Court: Mr. Beehler, before you proceed any further, I think we will take our morning recess. We will recess until 20 minutes after 11:00.

(Recess.) [608]

Mr. Beehler: I note we have not offered in evidence Defendants' Exhibit P, which I wish to do at this time. I offer it in evidence.

The Court: It may be received.

(The document, heretofore marked Defendants' Exhibit P, for identification, was received in evidence.)

Mr. Beehler: I wish, also, to offer in evidence Defendants' Exhibit R.

The Court: It may be received.

(The document, heretofore marked Defendants' Exhibit R, for identification, was received in evidence.)

Mr. Beehler: Mr. Freeman this morning asked about the reduction in size of the small copies of

(Testimony of Irvin W. Masters.)

the large exhibits which we have talked about. We have measured them and find that they are practically one-half the size of the larger one; and, also, by reference to the little squares on the exhibit in evidence, the little squares were testified by Mr. Masters as having a dimension of 5/1000ths of an inch. Am I correct? And the same squares on the copies will then also represent 5/1000ths of an inch.

Mr. Freeman: So that actually the proportions, while you said one-half, it is really one-quarter scale; 50 per cent reduction in a photostat makes it one-quarter scale, 5 to 1. Is it still 10 to 1?

Mr. Beehler: 10 to 1 on the smaller one. [609]

The Court: At least I understand that the big drawing is on a 20 to 1 basis?

Mr. Beehler: Yes.

The Court: And these little drawings that you have given me are about half?

Mr. Beehler: They work out about 10 to 1.

The Court: All right.

Q. (By Mr. Beehler): In order that the record, further, may be clear with respect to Section No. 2, will you state again, Mr. Masters, differentiate between tolerance and clearance, what you said about the expansion of the large end of the sleeve head and its relation to the nut?

Mr. Freeman: May I suggest that we use Defendants' numbers because color-section or cross-section No. 2 is down in the corner, and it is not intelligible in our photostats.

Mr. Beehler: Fine. Defendants' Exhibit P.

(Testimony of Irvin W. Masters.)

The Court: What was the question, again?

(The question referred to was read by the reporter as follows: "In order that the record, further, may be clear with respect to Section No. 2, will you state again, Mr. Masters, differentiate between tolerance and clearance, what you said about the expansion of the large end of the sleeve head and its relation to the [610] nut?"')

The Witness: Tolerance represents the difference which is permissible between the largest diameter and the smallest diameter of any particular part. When the parts are assembled there initially must be a clearance between the parts. The minimum clearance would be when the internal part is at the largest tolerable diameter, and the external part is at the smallest tolerable diameter. The maximum clearance would be when the internal part is at the smallest tolerable diameter, and the external part is at the greatest tolerable diameter.

Q. (By Mr. Beehler): What, then, did you find the clearance to be in Defendants' Exhibit P at the large end of the sleeve?

A. 6/1000ths—did you ask the clearance?

Q. Clearance, yes.

A. 6/1000ths was the minimum clearance, and 12/1000ths, the maximum clearance, at the large end of the sleeve.

Q. Further, to be certain that the record is correct with respect to Defendants' Exhibit Q, when

(Testimony of Irvin W. Masters.)

you referred to the clearance between the sleeve and the nut, which end of the sleeve did you have reference to?

A. I believe on that part we discussed only the clearance between the nut and the sleeve at the largest end of the sleeve. [611]

Mr. Beehler: I offer for identification Defendants' Exhibit S, a tabulation of figures representing certain test results.

The Clerk: Exhibit S for identification.

(The document referred to was marked Defendant's Exhibit S for identification.)

Q. (By Mr. Beehler): Mr. Masters, have you on occasion made tests in order to determine the precise expansion of sleeve heads of the AN series of fittings? A. I have.

Q. Will you describe briefly for the court how the arrangement was made in order to conduct the tests which you ran?

A. In order to ascertain the amount of expansion of the sleeve when assembled and tightened to varying torques, we drilled a nut of the assembly at different points to drill holes across to observe hexes. One was at about the approximate midsection of the sleeve head. The other was about 1/64th of an inch of the end of the sleeve. The other one was within 1/64th of an inch of the hole of the sleeve.

Then we assembled the sleeve and the nut on a piece of flared tubing and screwed it on to the

(Testimony of Irvin W. Masters.)

mating body finger tight and explored through the small holes with what we call a needle micrometer to ascertain the diameter of the sleeve [612] originally.

I wonder if I might have that needle micrometer off the desk there.

(Mr. Beehler handing article to the witness.)

A. Thank you. The needle micrometer penetrates the holes drilled, which are very small holes, and we measured the dimensions in those three different very narrow zones to ascertain the original diameter at the various points of the sleeve, and then after wrenching them up to a specified torque, measured again to see how much expansion there was.

Q. For the record, referring to the tabulation of results, will you identify those points which you measured by letter?

A. The dimension A is the diameter within 1/64th of the shoulder of the sleeve head or closer; the dimension B was the diameter about midsection of the sleeve head, a little closer to the free end than to the shoulder. The section B was as near as we could measure to the end of the sleeve head. The reason——

Q. You mean the toe end?

A. At the toe end. The reason I took it 1/64th from the end is that 1/64th of an inch is only slightly over 15/1000ths and there is a chamfer on each end of 10/1000ths, which we needed to avoid.

Q. How did you mount these parts in order to conduct the tests? [613]

(Testimony of Irvin W. Masters.)

A. On these tests with the holes in the nut, we simply clamped the body, hex of the body, in a vice, and gripped the nut in a torque wrench and pulled the torque wrench to the calibrated torque.

Q. In tightening up those specimens which you used for testing, what torques did you apply?

A. In most instances, we used the specified number torques, namely, 200 inch pounds or pound inches on the -8 dural size, and we twisted some at higher torques to determine what would happen.

Mr. Beehler: I offer for identification Defendants' exhibit next in order, consisting of a blank sheet.

The Clerk: Defendants' Exhibit T for identification.

(The blank sheet referred to was marked Defendants' Exhibit T for identification.)

Q. (By Mr. Beehler): Will you explain, Mr. Masters, what that sheet was?

A. That was simply a working sheet that I used when conducting these tests for convenience. At the top it says "Test to Ascertain the Amount of Expansion and Places at Which Expansion Occurs When Sleeve Is Pressed Onto Flare at Specified Wrench Torque." [614]

Q. Did you keep a sheet like that for each test specimen? A. I did.

Q. You mentioned the exploration holes which you used in connection with the needle point micrometer. Was there some other test method which you used in conjunction with those test runs?

(Testimony of Irvin W. Masters.)

A. Yes, there were a few tests I have conducted simply by pushing the parts together so that the sleeve head could be out in the open, so we could see it completely. We mounted two blocks in a vice, one had recesses into which we could screw the bodies with the nose pointed inwardly, and the other block was opposed simply so that we could press the sleeve on with a nut of the same pitch that is used in the assembly.

Q. Do you mean pressed the sleeve on the flare?

A. On the flare of the body.

Q. With the flare against the body?

A. With the flare against the body, with the sleeve situated outside the flared tube so that we could see what happened to the sleeve out in the open.

Q. And under the last defined method there was nothing at all to restrict the expansion of the sleeve head, is that correct?

A. That is correct. [615]

Q. Among the specimens which you selected for testing, what did you do to determine the dimensions before they were assembled? How were they selected, in other words?

A. Well, they were selected at random from stock, but we were careful to get only sleeves and parts that were within the tolerances.

Q. Whose manufacture were the parts which you tested?

A. Well, some of them were Parker's manufacture, some Weatherhead, some Masters.

(Testimony of Irvin W. Masters.)

Mr. Beehler: I offer in evidence as Defendants' Exhibit next in order test specimen No. 1.

The Clerk: Exhibit U.

Mr. Beehler: As Defendants' Exhibit U.

The Court: It may be received.

(The device referred to was marked Defendants' Exhibit U, for identification.)

Q. (By Mr. Beehler): Will you by reference to the tabulation of results describe what happened when the test was run on Defendants' Exhibit U?

A. This assembly was pushed on by the second test method which I described, with a wrench torque of 200-inch pounds, and the results were that in the A zone, that is the zone adjacent the shoulder, there was an expansion with 200-inch pounds of $3/10,000$ ths of an inch; the B zone there was an expansion of $2\frac{1}{2}/1000$ ths of an inch, that is [616] in the mid-section of the sleeve head; and at the toe end, or as near as I could get to the toe end, the outside diameter of the sleeve expanded $2/1000$ ths.

Q. Was the expansion at the A zone sufficient to fill the inside of the nuts which are specified for use with sleeves of that dimension? A. No.

Mr. Beehler: I offer for identification Defendants' Exhibit next in order, Masters' test specimen No. 2.

The Clerk: V.

The Court: It may be received.

(The device referred to was marked Defendants' Exhibit V, for identification.)

(Testimony of Irvin W. Masters.)

Q. (By Mr. Beehler): With respect to specimen No. 2, will you describe the test which was run on that?

A. That test was made by assembling the parts in the conventional manner, namely, with a flared tube and the sleeve, the nut, screwed onto the body, and we made the measurement through the exploration holes that I have described. The torque applied was, likewise, 200-inch pounds, and the expansion in this instance was, at or near the shoulder, $5/10,000$ ths of an inch; in the mid-section, it was $2/1000$ ths of an inch; and at or near the nose it was $2/1000$ ths of an inch.

Q. By that method of testing, then, was the expansion at [617] the large end of the sleeve enough or not enough to fill the surrounding nut?

A. It was not enough to fill the surrounding nut.

Mr. Beehler: I offer in evidence as Defendants' Exhibit next in order the physical specimen, Masters' test specimen No. 3.

The Clerk: W.

The Court: It may be received.

(The device referred to was marked Defendants' Exhibit W, for identification.)

The Court: Mr. Beehler, you are offering some to be marked as an exhibit, and you are offering some in evidence, but I assume you want them marked as exhibits?

Mr. Beehler: I would like to have them marked as exhibits, and then I will offer them in evidence at one time.

(Testimony of Irvin W. Masters.)

The Court: Just to keep the record clear, then, they are being marked for identification only.

Q. (By Mr. Beehler): What were your findings, Mr. Masters, with respect to test specimen No. 3?

A. Test specimen No. 3 was, likewise, assembled as No. 2, and torqued to 200-inch pounds, and on that specimen there was no measurable expansion at the shoulder; there was two and a half thousandths expansion in the mid-section; and there was one and one-quarter thousandths expansion at the end of the sleeve. [618]

Q. At the toe end, do you mean?

A. At the toe end of the sleeve.

Mr. Beehler: I offer for identification Masters' test specimen No. 4 as Defendants' Exhibit next in order.

The Clerk: X.

The Court: It may be so marked.

(The device referred to was marked Defendants' Exhibit X, for identification.)

Q. (By Mr. Beehler): You tested, I presume, specimen No. 4, Mr. Masters?

A. Yes; but I found in that that the end holes were too near the ends of the sleeve head to get an accurate measurement either originally or [619] after.

Mr. Beehler: I offer now for identification Masters' specimen No. 5 as Defendants' Exhibit next in order.

(Testimony of Irvin W. Masters.)

The Court: It may be marked.

The Clerk: Defendants' Exhibit Y for identification.

(The article referred to was marked Defendants' Exhibit Y for identification.)

Q. (By Mr. Beehler): What were your findings in connection with test No. 5?

A. No. 5 was also torqued at 200-inch pounds, and there was no expansion in the region of the shoulder. Pardon me just a moment, please. No. 5 we are talking about?

Q. No. 5.

A. There was $2\frac{3}{4}/1000$ ths expansion in the mid-section of the sleeve head and there was $3\frac{1}{2}/1000$ ths expansion out at the end or the toe end of the sleeve.

Q. Now, may I just ask, Mr. Masters, in arriving at these figures which you have tabulated here, how much check was made on the micrometer readings?

A. You mean on the accuracy of the micrometer?

Q. On the accuracy of the micrometer. How many persons read it or how many times did you read it?

A. In most of these instances, there was at least one other person present who witnessed it and checked my figures.

Mr. Beehler: I offer for identification as Defendants' [620] Exhibit next in order Masters' test specimen No. 6.

The Clerk: Exhibit Z.

(Testimony of Irvin W. Masters.)

(The article referred to was marked Defendants' Exhibit Z for identification.)

Q. (By Mr. Beehler): Will you explain, Mr. Masters, your observation when specimen No. 6 was tested?

A. Well, we first torqued specimen No. 6 to 200-inch pounds. There was no expansion in the region of the shoulder, that is, the A zone. There was only 1/10th of a thousandth expansion in the mid-portion of the sleeve head, and there was 7/10ths of a thousandth expansion at the toe end of the sleeve.

We then torqued the same assembly to 350-inch pounds to see what would happen, and it expanded—I beg your pardon. I am crossing myself up here. This is not the one that we expanded to the excessive torque. That one we only tested to 200-inch pounds. I am sorry.

Q. Did you then after that test a specimen to a torque greater than the recommended inch pounds?

A. I did.

Q. What were your observations?

A. Mr. Beehler, if I may, because of the fact that I run across the wrong line here, I would like to correct the testimony as to the previous one. May I?

Q. Very well. [621]

A. Specimen 6 expanded under 200-inch pounds, there was no expansion at the shoulder. There was—maybe I did give you the right testimony. There was 1/10th of a thousandth expansion in the mid-

(Testimony of Irvin W. Masters.)

section of the sleeve head, and there was 8 ten-thousandths expansion at the toe.

Q. If I may suggest, I believe the line above is the correct one for No. 6. That is 7/10ths thousandths.

A. 7 ten-thousandths is correct. I am still crossed up.

Q. To repeat my last question, did you then test a specimen to which was applied a torque greater than that recommended, and, if so, describe it and give your observations?

A. We tested the same size assembly at 350-inch pounds, and the expansion at the shoulder 1/1000th of an inch; at the midsection, for some reason or another, it was only 1/10,000th of an inch; at the nose was 8/10,000th of an inch.

Then we increased the torque on that same specimen to 600-inch pounds, and the expansion at the shoulder was zero; the expansion in the midsection of the sleeve head was 4-4/10th thousandths; the expansion at the toe, or as nearly as we could measure it at the toe, was 6/1000ths.

Q. Then I find here, Mr. Masters, still another specimen, No. 7. Will you tell us what happened to that one?

A. This was a pushed on test. We used [622] 400-inch pounds and we got 4/1000ths of an inch expansion at the shoulder.

Q. Excuse me, Mr. Masters. For a dural sleeve, is that 400-inch pounds more or less than the recommended torque?

(Testimony of Irvin W. Masters.)

A. That is double the recommended torque.

Mr. Beehler: I offer now for identification Defendants' Exhibit next in order, Masters' specimen No. 10.

The Clerk: AA.

(The article referred to was marked Defendants' Exhibit AA for identification.)

Mr. Freeman: What about specimen 7? Are we going to skip that, or is that in?

Mr. Beehler: We do not have the physical test specimen No. 7 here.

The Clerk: This is offered as AA for identification.

Q. (By Mr. Beehler): Will you describe your observations in connection with test specimen No. 10, Mr. Masters?

A. Specimen No. 10 was a size 6 AN assembly with an aluminum-bronze sleeve, which we torqued to 112-inch pounds. There was no expansion in Zone A at the shoulder. There were 2-3/10 thousandths expansion in the midsection and 4-5/10 thousandths expansion near the nose of the sleeve.

Mr. Beehler: I offer now for identification Defendants' Exhibit next in order, Masters' specimen No. 11.

The Clerk: BB. [623]

(The article referred to was marked Defendants' Exhibit BB for identification.)

Q. (By Mr. Beehler): What were your observations in connection with specimen No. 11, Mr. Masters?

(Testimony of Irvin W. Masters.)

A. This was the same assembly as the last specimen, tested also at 112-inch pounds. There was no expansion at the shoulder. There was 1/1000ths expansion at the midsection of the sleeve head. There was 3-4/10 thousandths expansion at the nose end of the sleeve head.

Mr. Beehler: I offer now as Defendants' Exhibit next in order for identification Masters' specimen No. 12.

The Clerk: Exhibit CC.

(The article referred to was marked Defendants' Exhibit CC for identification.)

Q. (By Mr. Beehler): Will you state your observations in connection with the test of No. 12, Mr. Masters?

A. No. 12 likewise was a 6 size dural fitting with an aluminum bronze sleeve, which I torqued at 150-inch pounds. The expansion at the head was 5/10 thousandths; the expansion in the midsection of the head was 11½ thousandths; the expansion at the nose end of the head was 3-4/10 thousandths. [624]

Q. Now, Mr. Masters, these specimens which we have referred to up to this time were of whose manufacture? A. Well, I am not——

Mr. Freeman: He already answered that once, I think.

The Witness: I am not positive, but there are a mixture of parts there.

Mr. Beehler: May we pass the question, then?

I present now as Defendants' next in order, for identification, Masters' test specimen No. 35.

(Testimony of Irvin W. Masters.)

The Clerk: DD.

(The device referred to was marked Defendants' Exhibit DD, for identification.)

Q. (By Mr. Beehler): Will you give your observations in connection with that test?

A. This is an aluminum fitting assembly in the -8 size in which we have used the 811BT-8 dural nut, the 811FT dural body, with a dural sleeve made to the Parker 1935 drawing, which is No. 2-1835-2, in the -8 size. The tube flare was made with a 30-degree flaring pin, which is the specified 811 -8 size tool with the corresponding split die. This was torqued to 250-inch pounds. The expansion at the shoulder was zero; the expansion in the mid-section was 5/1000ths; and the expansion at the toe end of the sleeve was 6/1000ths.

Mr. Beehler: I offer now as Defendants' Exhibit next [625] in order, for identification, Masters' test specimen No. 36.

The Clerk: EE.

Q. (By Mr. Beehler): Will you describe your test and the results of that specimen, Mr. Masters?

A. This was the same sort of an assembly as specimen 35. The parts were made from the same drawings that I named in 35. This specimen also was torqued to 250-inch pounds. The expansion at the shoulder was zero; the expansion midway of the head of the sleeve was 4-4/10/1000ths; the expansion at the toe of the sleeve was 5-8/10/1000ths.

Mr. Beehler: I offer now as Defendants' Exhibit for identification next in order Masters' steel specimen No. 1.

(Testimony of Irvin W. Masters.)

The Clerk: FF.

(The devices referred to were marked Defendants' Exhibits EE and FF, for identification.)

Q. (By Mr. Beehler): Will you describe your test and the observations in connection with that specimen, Mr. Masters?

A. This is an assembly of flared tube, steel nut, steel sleeve, and steel body to the AN specifications, which we assembled, using the exploration holes for measurement. Under a torque of 500-inch pounds, which I understand is the torque used by one large airplane company, the Douglas Aircraft Company, in their installation specification, and the expansion at the shoulder was $6\frac{1}{2}/1000$ ths; the [626] expansion midsection was $15\frac{1}{2}/1000$ ths; the expansion at the nose was $17/1000$ ths.

Q. For the No. 8 size, in accordance with that test, would the expansion at the nose be enough, or not enough, to completely fill the inside diameter of the nut? A. Yes, it more than did so.

Q. Would the expansion at the large end of the sleeve be enough or not enough to fill the inside of the nut?

A. It would if the parts were at the basic dimensions.

Q. And if they were otherwise?

A. If the parts had more than the minimum tolerable clearance there could be a clearance.

(Testimony of Irvin W. Masters.)

Q. But with respect to the expansion at the toe end, even if the parts had their maximum clearance, would or would there not be a complete filling of the nut?

A. No, if there was a maximum clearance there still would be a little space there.

Q. About how many thousandths, do you figure?

A. Well, about $13\frac{3}{4}/1000$ ths of an inch on each side, or about $31\frac{1}{2}/1000$ ths of an inch on the diameter.

Mr. Beehler: I offer as Defendants' Exhibit next in order for identification Masters' steel specimen No. 2.

The Clerk: GG.

(The device referred to was marked Defendants' Exhibit GG, for identification.) [627]

Q. (By Mr. Beehler): What was your test and the results thereof in connection with that specimen, Mr. Masters?

A. This was the same assembly as the one just previously described, but torqued only to 250-inch pounds, which is the torque specified on the government sheets. The results were that there was no expansion at the heel—or at the shoulder, pardon me, at the shoulder of the sleeve; there was $11\frac{1}{2}/1000$ ths expansion in the midsection: there was $1/1000$ th expansion out at the toe.

Mr. Beehler: I note that it is noon.

The Court: Maybe this is as good a time to break as any. We will stand recessed until 2:00 o'clock this afternoon.

(Whereupon at 12:00 o'clock noon, a recess was taken until 2:00 o'clock p.m.) [628]

June 22, 1950—2:00 o'Clock P.M.

Mr. Beehler: Mr. Masters, will you resume the stand?

IRVIN W. MASTERS

the witness on the stand at the time of recess, having been heretofore duly sworn, resumed the stand and testified further as follows:

Direct Examination
(Continued)

By Mr. Beehler:

Q. Mr. Masters, have you prepared a little sketch showing the set-up that you used when you made these tests that we have described here this morning?

A. Yes. I have made a little sketch of the method in which we tested the sleeves out in the open, what we call the push-on test.

Mr. Beehler: I would like to present for Defendants' Exhibit next in order for identification the sketch prepared by Mr. Masters showing the set-up which he used for the purpose of the test.

The Clerk: HH.

(The document referred to was marked Defendants' Exhibit HH for identification.)

(Testimony of Irvin W. Masters.)

Q. (By Mr. Beehler): Will you state again briefly with relation to that sketch, Mr. Masters, just what the characters represent? [629]

A. Well, I have shown there some parts between two jaws of a vise. The parts are simply a holder that slid on the one jaw of the device and another holder which slid on the other jaw of the device. On one holder is a stem with a threaded portion, with the thread the same fit as on the 8 size AN body.

Onto this was screwed an AN nut into which we placed an AN819 sleeve, in which sleeve there was a short piece of flared tubing to specification AND10061.

Opposed to that in the other holder, in the other jaw of the vise, is an AN816 8 D fitting, D meaning dural.

They were then brought together just to the point of touching, being lined up. The nut then was screwed up finger tight, the vise jaws remaining fixed. Then we tightened the nut to drive the sleeve onto the other portion according to the specified wrench torques that we have mentioned in the tests.

There were just a few of these push-on tests. We felt that we would get more accurate results with the pull-on test using the aspiration holes in the nut, and there was a slight possibility of a misalignment here and not getting just the same results that we would get under the normal conditions.

Q. Will you compare the micrometers which you had available for measuring the expansion and tell

(Testimony of Irvin W. Masters.)

us why you used the needle point micrometer, rather than the other kind? [630]

A. Well, the ordinary micrometers for measuring cylindrical diameter have anvils of some breadth. We were measuring conditions in very narrow zones on these sleeve heads, so we used these needle point micrometers, which have anvils that come to a point, not to an exact point, but to a very small diameter, so that we could measure the condition of the narrow zones.

Mr. Beehler: I wish to offer in evidence at this time Defendants' Exhibits O through HH, inclusive.

The Court: They may be received.

(The exhibits referred to were received in evidence and marked Defendants' Exhibits O through HH.)

Q. (By Mr. Beehler): Referring once again, Mr. Masters, to the tabulation of your test results, and directing your attention to steel No. 1, Defendants' Exhibit FF, will you give us again your observations in connection with the resultant expansion, taking into consideration the maximum and minimum tolerances which would be allowable under those conditions, according to the AN specifications?

A. When wrenched to 500-inch pounds torque, the sleeve in this specimen expanded .0065 at the shoulder of the sleeve head; midway of the length of the sleeve head, it expanded .0155, and at the area measured right near the nose of the sleeve head, the expansion was .017.

(Testimony of Irvin W. Masters.)

The expansion at the shoulder would result in a light [631] contact or interference of .005 or one-half thousandth of an inch, if the clearance was at the minimum between the nut and the sleeve.

Likewise, if the clearance was at the minimum at the other two sections of the sleeve, the midsection and at the nose, there would be interference there.

Q. By interference, you mean that the sleeve would expand so as to contact the inside——

A. Of the nut?

Q. ——of the nut at those points?

A. That's right, and try to occupy some of the same space that the nut was occupying. That would mean that at the minimum clearance at the end of the sleeve, the sleeve would expand to 4-1/10 thousandths greater than the diameter of the nut.

Q. Then how would it compare under conditions of maximum clearance?

A. Under maximum clearance, there would be a diametrical clearance left of .0055 at the shoulder after the expansion, and at the nose there would be .0019 clearance left, or just under, .002 clearance at the nose. [632]

Q. Then, will you select an intermediate clearance and tell what the conditions would be then?

A. If the parts were just in the middle of the tolerance the clearance at the shoulder would be .0025, but there would be at the end, or nose end of the sleeve, the sleeve would expand .001 more than the diameter of the nut, there would be an interference.

(Testimony of Irvin W. Masters.)

Q. Tell us, then, Mr. Masters, what your observation was as a result of this series of tests with respect to the expansion of AN sleeve heads at the larger end, related, of course, to the surrounding wall of the nut?

A. I would state that under normal torquing conditions and moderately over-torqued, the sleeve at the large diameter or shoulder end of the sleeve head would not engage the nut.

Q. Under those circumstances would it make any difference whether the sleeve head missed the nut by 15/1000ths of an inch instead of the two or three thousandths of an inch, which you found as a result of tests?

A. No, there is no restraint or pressure set up until an actual contact has been made, and the one part moved to the point of embedding itself or trying to embed itself on the other part.

Q. You have observed, Mr. Masters, during the course of the plaintiff's presentation of its case, certain sectioned samples of made-up couplings have you not? [633] A. Yes.

Q. Have you examined those sections to determine, if you could, what the clearance might be between the external surface of the sleeve head and the surrounding wall of the nut?

A. I have on several of them, yes.

Q. Were you able to determine accurately from your observation of those sections anything about the relationship of the expanded sleeve head and the inside of the nut?

(Testimony of Irvin W. Masters.)

A. Well, we found some open spaces which we could measure in the condition that they are in, but that didn't indicate to me anything as to their condition when they were assembled.

Q. What happens to the hoop tension in the sleeve when it is cut away and sectioned?

A. There isn't any hoop tension in the sleeve when it is cut apart.

Q. What would ordinarily happen to a hoop under tension under circumstances such as that?

A. It would fall off of whatever it was hooping.

Q. May I direct your attention now, Mr. Masters, to Figure 2 of the patent in issue, No. 2,212,183, which according to the patent specification represents the parts before they are tightened up, and may I direct your attention particularly to that portion of the sleeve head adjacent the [634] shoulder, and its relationship to the surrounding wall of the nut, and I ask you during your manufacture of sleeves and nuts has there come under your observation sleeves sufficiently large at the head so that they would bear that relationship to the nut?

A. Yes, I have seen a number of such sleeves that would be large enough in diameter to contact the nut.

Q. What relationship would those sleeves have to AN specifications?

A. They would be outside the tolerance of the AN specifications. They would be too large.

Q. Would they be acceptable on test?

A. No, not if they were inspected.

(Testimony of Irvin W. Masters.)

Q. Suppose you shipped sleeves of that character to your customers, what would happen to them?

A. They would probably come back. I say "probably," because they might slip through inspection. They couldn't use them.

Q. We talked this morning, Mr. Masters, about the NAF fitting. I neglected to ask you at that time how long ago it was that the NAF fitting, and the specifications of angles relating thereto, was established?

A. They were established early in 1935, adopted in part in the fall of '35, and up to the one-inch size in 1936.

Q. You are familiar, also, are you not, Mr. Masters, [635] with the inverted flare type fitting, so called SAE fitting? A. Yes.

Q. That is a two-piece fitting, is it not?

A. That's right.

Q. What companies manufacture that particular type fitting?

A. I believe they have been manufactured by a number of different companies. I know the Weatherhead Company has manufactured the inverted flare, SAE inverted flare, for many years.

Q. Do you know of any aircraft which use the inverted flare fitting, the two-piece fitting?

A. Well, the Air Corps 810 is an inverted flare fitting, which has been used very extensively and is still on some of the older ships.

(Testimony of Irvin W. Masters.)

Q. Did you ever hear of the Navion plane, manufactured by North American Aviation?

A. Yes.

Q. Do you know what kind of fittings are used on that plane?

A. They use the SAE inverted flare, brass fittings, on that. [636]

Q. Directing your attention now, Mr. Masters, to another colored sectional sketch, identified on its face as section No. 5, I ask you who made that sketch?

A. I made the sketch.

Q. What scale did you use for the making of that sketch?

A. That is 40 to 1.

Mr. Beehler: I request that be marked II for identification.

The Court: It may be so marked.

(The document referred to was marked Defendants' Exhibit II for identification.)

Q. (By Mr. Beehler): With respect to Defendants' Exhibit II, what was the source of the figures which you used in making that sketch?

A. Well, the nut, the blue part, is from AN drawing, Army-Navy drawing, AN818.

The red portion or sleeve is from AN819.

The yellow portion, the flared tube, is from AND10061.

Q. And that is for size 6, is it not?

A. That's right.

Q. What governed your selection of the precise dimensions employed in depicting the exterior of

(Testimony of Irvin W. Masters.)

the head of the sleeve and the interior of the surrounding surface of the nut? [637]

A. The sleeve dimensions are from AN819, and the nut dimensions are from AN818.

Q. Did you pick maximum or minimum tolerance conditions?

A. One moment, please. Those are the basic dimensions, which would mean—you asked for maximum and minimum tolerances. These are at the minimum clearance conditions.

Q. That is, you picked the dimensions which would give the minimum clearance possible for the parts when put together? A. That is correct.

Q. Then with respect to the sleeve head angle depicted in the sketch, what guided your selection of that particular angle?

A. That also is the minimum angle that is permitted.

Mr. Beehler: I now present for identification Defendants' Exhibit JJ, consisting of another colored sectional sketch.

The Clerk: JJ for identification.

(The document referred to was marked Defendants' Exhibit JJ for identification.)

Q. (By Mr. Beehler): I ask you who made that sketch? A. I made it.

Q. That was to a 40 to 1 scale?

A. That's right. [638]

Q. From what source did you get the information which you used in drawing the nut, the sleeve, and the flare of that sketch?

(Testimony of Irvin W. Masters.)

A. The section that is a portion of the nut, in blue, is from Parker drawing 2-1835-1, in the -6 size.

The red portion, which is the sleeve, is from Parker drawing 2-1835-2, in the -6 size.

Q. What was the year of issuance of those Parker drawings, if you know?

A. They are dated February 18, 1935.

Q. What guided you in selecting the particular outside dimensions of the sleeve head and the inside dimensions of the surrounding nut?

A. I think it was in this instance the minimum tolerable diameter of the sleeve head and the maximum tolerable diameter of the nut.

Q. And that gave you what with respect to the clearance?

A. The maximum tolerable clearance.

Q. Why does there not appear a sleeve head angle on the exterior of the sleeve of this sketch?

A. Because it didn't appear on the drawings that I used to make this reproduction.

Q. Which gives the greater clearance, Exhibit II or Exhibit JJ, the greater clearance between the sleeve head and [639] the nut?

A. The Exhibit JJ just described gives the greater clearance. There are two clearances involved in II.

Q. The clearance at the large end of the sleeve head?

A. The clearance at the large end of the sleeve head in II is .003. The clearance between the sleeve and the nut in JJ is .0045.

(Testimony of Irvin W. Masters.)

Q. It is greater than in the earlier sketch, the sketch depicting the earlier drawings?

A. That's right.

Q. Will you compare, then, the clearance at the toe end of the sleeve head of Exhibit II, which depicts AN assembly No. 6 or part thereof?

A. In the Exhibit II, which is the AN assembly No. 6, the clearance at the toe end of the sleeve is .00432 and in the Exhibit JJ the clearance at the toe end is .0045.

Q. The greater clearance, then, is in the 1935 drawing, is that correct? A. That is right.

Q. Will you refer now, Mr. Masters, to Plaintiff's Exhibit 28-J, which is captioned, "Advantages of Sleeve Head Angle Permits Free Expansion of Sleeve Head." Do you or do you not find it true that the clearance depicted in Exhibit JJ permits free expansion of the sleeve head? [640]

A. Yes, it does.

Q. Referring now to Plaintiff's Exhibit 28-K, captioned, "Advantages of Sleeve Head Angle, Expansion of Sleeve Head Provides Hoop Tension," do you find that to be true of the parts shown in Exhibit JJ? A. That is true.

Q. Referring to Plaintiff's Exhibit 28-L, captioned, "Advantages of Sleeve Head Angle, Hoop Tension Locks Nut Against Loosening," do you find or do you not find that the clearance shown in Exhibit JJ has that advantage?

A. Well, there is clearance there that would permit expansion, yes. [641]

(Testimony of Irvin W. Masters.)

Q. Refer, please, to Plaintiff's Exhibit 28-M, "Advantages of Sleeve Head Angle, Free Expansion Corrects Out-of-round Sleeves"; does or does not the clearance shown in Exhibit JJ permit free expansion to correct out-of-roundness of sleeves?

A. Well, it would if the sleeve in 28-M would permit it. There is greater room for expansion in Exhibit JJ. That would permit it.

Q. Refer now to Plaintiff's Exhibit 28-N, captioned, "Advantages of Sleeve Head Angle, Expansion Converts Toe Contact to Area Contact"; would the clearance of Exhibit JJ affect that?

A. Well, I don't see any toe contact there.

Q. Turn now to Plaintiff's Exhibit 28-O, "Advantages of Sleeve Head Angle, Expansion Makes Amount of Nut Turning Less Critical"; do you find the same advantage in the clearance provided in Exhibit JJ?

A. Yes, there is.

Q. Turn now to Plaintiff's Exhibit 28-P, captioned "Advantages of Sleeve Head Angle, Angle Provides More Room for Expansion Where Expansion is Greatest"; do you find or do you not find that the clearance on Exhibit JJ provides that same advantage?

A. Yes, there is room for expansion there just the same, a little more of it, in fact. [642]

Q. Turn to Plaintiff's Exhibit 28-Q, captioned "Advantages of Sleeve Head Angle, Angle Permits Maximum Shoulder Contact"; do you or do you not find that same advantage in the parts shown in Exhibit JJ?

A. In JJ the drawing was reproduced from

(Testimony of Irvin W. Masters.)

Parker's drawings in which there was no radius shown on the outside shoulder corner of the sleeve, nor no fillet in the nut. I am not able to make a comparison on that without some calculations. But I would say that JJ would have more area on the shoulder-to-shoulder contact than 28-Q.

Q. Refer now to Plaintiff's Exhibit 28-R, "Advantages of Sleeve Head Angle, Angle Facilitates Disassembly of Sleeve from Nut"; do you or do not find that same advantage in the relationship of parts shown in Exhibit JJ?

A. That's right. Just a matter of clearance.

Q. Refer to Plaintiff's Exhibit 28-S, "Advantages of Sleeve Head Angle, Angle Provides Additional Clearance to Avoid Locking of Sleeve to Nut"; do you or do you not find those same advantages present in the clearance provided in the showing of parts in Exhibit JJ?

A. If 28-S has clearance enough to prevent locking, Exhibit JJ would.

Q. Refer now to Plaintiff's Exhibit 28-T, "Advantages of Sleeve Head Angle, Angle Prevents Scoring of Flare"; will you compare the parts of Exhibit JJ with that and give [643] us your judgment?

A. In my judgment the matter of scoring is a matter of workmanship more than anything else. I never observed any scoring where the sleeve was integral with the nut. But if the angle in the sleeve 28-T results in a clearance that would be any bene-

(Testimony of Irvin W. Masters.)

fit in that respect, the clearance in JJ is sufficient to be a greater benefit.

Q. Will you compare Plaintiff's Exhibit 28-U with the relationship of parts shown in Exhibit JJ?

A. It says the "Angle prevents twisting of tube." I presume that that means that the angle permits the sleeve to expand under torque without seizing on the nut. And that, again, would be a matter of clearance, and you would have the same clearance on JJ, or greater clearance on JJ in the condition shown. So if in 28-U it prevents twisting of the tube, JJ would also.

Q. Refer now to Plaintiff's Exhibit 28-V, "Advantages of Sleeve Head Angle, Angle Facilitates Disassembly of Bent Tubes"; do you or do you not find the same advantage in the relationship shown in Exhibit JJ?

A. Yes, that is just a matter of clearance, again.

Q. Refer, finally, to Plaintiff's Exhibit 28-W, "Advantages of Sleeve Head Angle, Angle Facilitates Disassembly of Damaged and Tagged Tubes"; do you or do you not find the same advantages in the clearance relationship shown [644] in Exhibit JJ?

A. Yes, I do.

Q. Will you refer now, Mr. Masters, to Plaintiff's Exhibit 53. How does the relationship of parts of Plaintiff's Exhibit 53 compare with the relationship of parts of your drawing color section 2?

Mr. Huebner: That is Exhibit V.

Q. (By Mr. Beehler): Exhibit V.

Mr. Huebner: I am wrong on that.

(Testimony of Irvin W. Masters.)

Mr. Freeman: I suggest we have the chart marked or we will have a bunch of exhibits in the Court of Appeals that they won't know what they are.

The Court: The charts have already been marked, but counsel isn't calling them by the marks.

Mr. Beehler: They don't have the marks on them.

Mr. Freeman: May I ask whether these charts are going in evidence, or are you putting small ones in? These have never been marked, your Honor, as far as I know.

Mr. Beehler: The charts are going in evidence.

Mr. Freeman: Then I suggest that they be marked.

Mr. Beehler: May we take time out just to make the marks on the charts to compare with the marks on the small sketches which we submitted?

May we have the question read?

(The question referred to was read by the reporter [645] as follows:

“How does the relationship of parts of Plaintiff's Exhibit 53 compare with the relationship of parts of your drawing color section 22?”)

Q. (By Mr. Beehler): Defendants' Exhibit P.

A. As far as I can see, they are practically the same. However, the lines are relatively heavier, and the lines blend here——

Q. By “here” you mean——

A. In Plaintiff's Exhibit 53. So that I just

(Testimony of Irvin W. Masters.)

can't be sure of where the contacts are made, nor do I know that the angles are the same. They appear to be the same. [646]

Q. Will you refer now to Plaintiff's Exhibit 58 and the drawing shown there and compare it with Defendants' Exhibit O, and state for the record whether the relationship of parts is the same?

A. No. Plaintiff's Exhibit 58, the sleeve appears to extend out farther toward the large end of the sleeve—the sleeve appears to extend out farther on the large end of the flare than in our scale drawing.

Q. Do you note any other differences, or is that all?

A. I can't tell exactly, because there is nothing on this drawing to indicate sizes. It is illustrative. It seems to be otherwise in about the right proportions, but I don't know about the spaces there or the thickness of those lines.

Q. Will you compare the drawing in Plaintiff's Exhibit 59 with Defendants' Exhibit O?

A. The same observations as concerning Plaintiff's Exhibit 58, namely, that this sleeve 10 appears to contact the flared tube 2 out nearer the end than in our scale drawing.

Q. Which of the two drawings do you consider more accurately depicts the relationship of parts, taking into consideration their dimensions?

A. The scale drawing, I am sure, is more accurate.

(Testimony of Irvin W. Masters.)

Mr. Beehler: Will you mark this as Defendants' Exhibit [647] KK for identification?

(The document referred to was marked Defendants' Exhibit KK for identification.)

Q. (By Mr. Beehler): I refer you now, Mr. Masters, to another colored sectional drawing, which I have had marked Defendants' Exhibit KK for identification. Will you tell us who made that drawing? A. I made it.

Q. What scale is that drawing made to?

A. 20 to 1.

Q. What did you use as a source of information for making that drawing, Defendants' Exhibit KK for identification?

A. The blue portion is a section of the AC811-6 nut.

The red portion is a current AC811T -6 size sleeve in steel.

Q. There is a second portion defined by a black line only. What is the source of the dimensions used for that?

A. That is Parker drawing 2-1835-2 in the -6 size sleeve.

Q. What is the year of issue of the Parker drawing, if you know? A. 1935.

Q. Taking, for example, the No. 6 size which you have [648] used for the basis of the drawing, how do the angles compare at the inside of the flare, the portion of the flare of the sleeve head which contacts the flare of the tube?

(Testimony of Irvin W. Masters.)

A. They are identical, 25 degrees.

Q. What did you find to be the outside diameter of the large end of the sleeve head shown in red?

A. It is 502/1000ths.

Q. What did you find to be the outside diameter of the sleeve head outlined in black, which you say was taken from the 1935 Parker drawing?

A. 503/1000ths.

Q. What is the difference between the two in thousandths of an inch?

A. .001, one thousandth of an inch.

Q. What is the inside diameter of the surrounding wall of the nut in each case?

A. 508/1000ths.

Q. The clearance, then, between the nut and the sleeve head of the 1935 Parker drawing is how much?

A. .006.

Q. And the clearance between the sleeve head shown in red and the surrounding nut is how much?

The Witness: Pardon me, Mr. Beehler. Will you please repeat Mr. Beehler's question; not the last one, but the one before? [649]

(The question referred to was read by the reporter, as follows:

“Q. The clearance, then, between the nut and the sleeve head of the 1935 Parker drawing is how much?”)

Q. (By Mr. Beehler): I believe you will find that to be .005, if I am not mistaken.

A. I am kind of confused as to the actual dimen-

(Testimony of Irvin W. Masters.)

sions here. Let me look at this larger drawing and maybe I can see faster. The clearance between the sleeve head and the nut, using the 35 part, is [640] .005.

Q. And the clearance between the nut and the AC-811 sleeve is, then—— A. 6/1000ths.

Q. So that there is only 1/1000th less clearance in the Parker sleeve as made in 1935?

A. That's right.

Q. The dimensions of the nut there shown were the same, were they, or not, as nuts made in accordance with the 1935 drawings?

A. That's correct.

Q. Have you any reason to believe, Mr. Masters, that nuts and sleeves were not actually made in accordance with those drawings?

A. Well, Mr. Wolfram so stated, that the sleeves were not.

Mr. Freeman: I suggest this witness answer as to what he knows, not what he heard here in the court room. After all, we are examining this witness with respect to the facts.

The Court: I think that is proper. The witness should not testify as to what he has heard here in court. The question is does he know.

Q. (By Mr. Beehler): Do you know, Mr. Masters, whether or not sleeves and nuts were made in accordance with the dimensions which you show on Defendants' Exhibit KK?

A. I had understood that they were. [651]

Mr. Freeman: The same objection.

(Testimony of Irvin W. Masters.)

A. (Continuing): And my basis for that, if I may proceed, is that the changes recommended by the Parker Appliance Company in a five-page letter from Mr. Parker, it was in the Amon deposition, carried recommended changes in the dimensions of the fittings, which carried me back to these 1935 figures. Frankly, I don't have them clear enough in mind to testify, but previous to the statement that I referred to I had believed these drawings represented the parts as made from 1935 to '38 or '39, some time thereafter.

Q. (By Mr. Beehler): Where did you get the 1935 drawings?

A. They were given to us by the Parker Appliance Company as drawings of parts commercially produced by them.

Q. You testified, Mr. Masters, at some length comparing Parker's Exhibits——

The Court: Before you get into that, we will take our afternoon recess. It is 3:00 o'clock. We will now recess until 15 minutes after three.

(A recess was taken.)

Q. (By Mr. Beehler): Mr. Masters, in connection with Plaintiff's Exhibit 28-J through 28-W, inclusive, you made certain comparisons as to the advantages of Defendants' Exhibit JJ. Could you or could you not make those same comparisons between the structure depicted by the black [652] outline of the sleeve in Defendants' Exhibit KK, depicting the Parker 1935 sleeve, and the same plaintiff's exhibits?

(Testimony of Irvin W. Masters.)

A. Yes, the comparison would be the same.

Mr. Beehler: I believe I failed to offer Defendants' Exhibit KK into evidence, which I shall now so do.

The Court: It may be received.

(The document, heretofore marked Defendants' Exhibit KK for identification, was received in evidence.)

Mr. Beehler: I also offer Defendants' Exhibit II and JJ.

The Court: They may be received.

(The documents, heretofore marked Defendants' Exhibits II and JJ, for identification, were received in evidence.)

Mr. Beehler: In order to clarify the record at this point, may I suggest that it is the large charts which we are offering in evidence as Exhibits, and that the same photographic reproductions which we have variously been referring to here were for convenience.

Q. (By Mr. Beehler): Once again, Mr. Masters, with regard to Defendants' Exhibit KK, how does the present-day AN standard nut compare with the nut which you showed on that drawing, having reference specifically to the inside dimension of the portion which surrounds the sleeve?

A. In the 6 size 818 nut the bore is 508, and the bore [653] is 508 on this nut shown in this drawing KK, the same dimension.

(Testimony of Irvin W. Masters.)

Q. Mr. Masters, are you familiar at all with the inspection practices of the airplane companies where it relates to the inspection of three-piece fittings of the kind here concerned?

A. Do you mean on the receiving inspection, receiving of the parts?

Q. Receiving of parts delivered from the fitting manufacturer.

A. Yes, I am.

Q. Which ones are you more familiar with?

A. Well, we ship parts to all of the airplane companies; a few parts to some, many to others. I presume I am most familiar with Lockheed, because we are close by and ship them quite a lot.

Q. What is the inspection practice of Lockheed, if you know, with respect to the inspection of the sleeves for a sleeve head angle?

A. I don't know what their inspection purposes are all the time, but I was told in one instance——

Mr. Freeman: I object to that. It is strictly calling for hearsay.

The Court: I think the objection is good. That is what he was told. [654]

Q. (By Mr. Beehler): Have you shipped any sleeves to the Lockheed Aircraft Company on which there was no sleeve head angle?

A. I have.

Q. How many thousand sleeves have you shipped that way?

A. There were 6,000 in one lot.

Q. Did they pass inspection?

A. They did.

Q. Did they know there was no sleeve head angle there?

Mr. Freeman: That is objected to. If he wants

(Testimony of Irvin W. Masters.)

to testify as to what he told them, that is one thing; as to whether they knew, or not, that is asking for a state of mind of somebody that he is not in position to testify to.

The Court: I think the objection is good.

Mr. Beehler: All right. [655]

Q. (By Mr. Beehler): Are you familiar at all with the practice and recommendations of the Society of Automotive Engineers with respect to three-piece fittings of the kind we are referring to here?

A. I know what they have adopted to go into the standards book for 1950. I have a pre-print of that.

Q. What have they adopted with regard to the sleeve head angle for the 1950 book?

A. They have made that optional.

Q. I call your attention, Mr. Masters, to Plaintiff's Exhibit 14, which is a letter to you from the Parker Appliance Company, dated August 12, 1943, which was presented in evidence in support of the contention that you were given a license under the Parker patents, and I call your attention to the drawings listed in that particular letter. Have you looked up those drawings? A. I have.

Q. Do you have them here?

A. These are the drawings.

Q. The numbers on the drawings in your hand correspond to the numbers in the letter?

A. Yes, they do.

Q. What are shown in these drawings?

(Testimony of Irvin W. Masters.)

A. Well, drawing A9-2941-9 is a bulkhead flange with an internal pipe thread on one end and an 811 nose detail or [656] body detail on the other end.

Drawing A1-2537-15 is simply a plate that is used for riveting. It is just like a washer.

Drawing A4-2342-2 is another bulkhead flange with an internal pipe thread on one end and a triple body detail on the other end.

The drawing A12-2741-27 is a bulkhead flange with internal pipe threads on both ends.

Q. Were these drawings that were given to you in connection with that letter? A. They were.

Mr. Beehler: I offer in evidence Defendants' Exhibit LL, drawing No. 9-2941-9; Defendants' Exhibit MM, drawing No. 1-2537-15; Defendants' Exhibit NN, drawing No. 4-2342-2; Defendants' Exhibit OO, drawing No. 12-2741-27.

The Court: They may be received.

(The documents referred to were received in evidence and marked Defendants' Exhibits MM, NN, and OO.)

Q. (By Mr. Beehler): From the drawings you have just been shown, Mr. Masters, could you make up a fitting assembly, a three-piece fitting assembly?

A. No.

Mr. Beehler: You may have the witness, Mr. Freeman.

The Court: May I ask the witness a question before you take the witness? [657]

Mr. Freeman: Yes, sir.

(Testimony of Irvin W. Masters.)

The Court: Mr. Masters, there has been a contention by your counsel on several occasions that the fittings that you made were not the fittings as described in the patent.

The Witness: That's right.

The Court: Do you contend that the fittings you made are not the fittings described in the patent?

The Witness: That's right.

The Court: Could I have the exhibits starting with the drawings, the blueprints, the photostatic copies?

I notice in all these drawings that have been introduced, O, P, Q, R, that only drawing P shows there is a toe contact. Did you make any sleeves in which there was a toe contact?

The Witness: I made sleeves from this drawing, your Honor, but I hardly regard that as toe [658] contact.

The Court: Well, that is the only drawing we have here in which it shows that the toe came in contact with the flare, and I say it is toe contact. It may not be toe contact, I don't know. But this is the only drawing which shows that. So I am wondering whether any of the fittings you made were made for toe contact.

The Witness. If this is toe contact, well, we made such fittings. But what is a toe? The end?

The Court: Assuming that this is a toe contact fitting——

The Witness I have made these.

(Testimony of Irvin W. Masters.)

The Court: You made some of these?

The Witness: Yes.

The Court: Were these the fittings which you made mostly, or did you make the fittings in which the toe did not come in contact with the flare of the sleeve?

The Witness: Well, we have made all along relatively few sleeves, your Honor. Most of our fittings have been bodies, because we are particularly proficient in the manufacturing of bodies. Sleeves and nuts are made by automatic screw machine manufacturers, and we have made relatively few of those. I would say that of the sleeves which we have manufactured, that from the standpoint of number of sleeves, we perhaps have made as many of these size 6 and under sleeves as we have made over size 6. Over size 6 the sleeve is not what you call toe contact, but the sleeve is as in Exhibit O, [659] or in the case of the 811 fitting, as in Exhibit Q. That is in all sizes over 6. From the standpoint of value, I would say that we have made a much less number of sleeves, dollar value, under this size than we have made over.

The Court: If it became necessary you could tell us the number of sleeves that you actually made?

The Witness: Yes, we have complete records from our whole history.

The Court: One other question. According to the testimony that has been introduced so far, your original plans were furnished either by the Parker Company or by the airplane companies, that is when

(Testimony of Irvin W. Masters.)

you originally started to make fittings or parts of fittings, is that correct?

The Witness: No, it isn't correct. We made millions of fittings that we received no plans from the airplane companies or Parker. In the 811 fittings, we had to synthetize the dimensions from the information that we could extract from the Air Corps and the Navy. And not until along in '43, to my knowledge, did drawings become available from the Parker Appliance Company, generally. We had in this district, in the Western Procurement District, a Col.^o Owens, I believe, was his name, and he got on the warpath in late '43 because of the fact that his inspectors were obliged to inspect millions of fittings without any drawings to inspect to, without any official drawings. Not that there [660] was anything wrong with them, but he wanted some official drawings. And about that time the aircraft scheduling unit and the industry's committee, fitting industry's committee, had a huddle as to how to get official drawings. We were making, then, several hundred different items for which we didn't have Parker Company drawings, and there were no official Air Corps drawings. But everybody knew what the details were of the Parker fitting, that is, the 811 series, that we knew as the Parker fitting, and of course the AN details were a matter of publication of the government officials. However, we ran into difficulty when some fittings were made, not as to the detail of the nose and nut and sleeve being the wrong sizes, but the overall size of the

(Testimony of Irvin W. Masters.)

fittings sometimes was wrong from the standpoint of the airplane company who formerly, we will say, had bought fittings made by the Parker Company. Then when they would get fittings from us, or somebody else, by the same name, although the nuts and sleeves would go on, they would be too short, they wouldn't fit the same lengths of pipe and fit into the same place. So then it became necessary for us all to have our drawings coordinated, and the best place to coordinate them was, of course, to get them from Parker who was the father of this child, and they did supply the industry with drawings. But previous to that we had filched the information one way or another before, so we didn't need many from them. [661]

The Court: When you make a sleeve, do you have a die from which the sleeves are made, or are they made automatically?

The Witness: The sleeves are usually made on automatic screw machines, and they are cut from a solid bar.

The Court. Do you have a die which you used?

The Witness: In the sleeves they don't use dies; they have turning tools, tools that bore and turn and form.

The Court: Is that automatic?

The Witness: That is automatic.

The Court: Did you set up this automatic procedure of turning out sleeves before you got the Parker plans, or after?

The Witness: The procedure of turning out—

(Testimony of Irvin W. Masters.)

did I set up the procedure of turning out sleeves?

The Court: Yes. You say it is made on a screw machine. I don't assume that it takes a manual operator to operate the machine?

The Witness: We were making sleeves long before we received any drawings from Parker, and these drawings received from Parker did not have any sleeves in them.

The Court: They didn't?

The Witness: No.

The Court: You didn't get any information about making the sleeve from the Parker drawings?

The Witness: On the 811 the sleeves, the information we [662] got undoubtedly originated with Parker, but the information we got was from the Air Corps, I am quite sure. [663]

The Court: Well, the thing we are concerned with here more than anything else, I think, is the sleeve, the shape of the sleeve, and the sleeve is made by an automatic machine, isn't that correct?

The Witness: That is correct, but the tools have to be manually shaped before the automatic machine can go to work.

The Court: Where did you get the information by which you could shape the tools?

The Witness: From the 811T drawings, which were available from 1935 on, and the modifications that were subsequently made were available.

The Court: Tell me this, the date of the patent——

(Testimony of Irvin W. Masters.)

The Witness: I believe I am a little in error on that, your Honor. The general 811 drawings were available from 1935 on, but it was stated they would be interchangeable with Parker. The detail drawings were available, I believe, from 1941 on.

The Court: The date of the Parker patent 2,212,183 shows it was originally filed March 2, 1938.

The Witness: That's right.

The Court: You were making sleeves before March 2, 1938?

The Witness: No, I was not.

The Court: You were not? [664]

The Witness: I didn't start manufacture of these things until the middle of 1940 in the first instance, and I don't believe I made any sleeves until perhaps the fall of 1941.

The Court: When you started to make the sleeves, did you use the Parker drawings, regardless of whether you got them direct from Parker, or did you get them from an airplane company?

The Witness: No. I used the Air Corps drawings, I am quite confident.

The Court: Was that a Parker drawing?

The Witness: It originated with Parker, so far as the sleeve is concerned, except that the dimensions were modified to come in line with the general dimensions of the AN parts.

The Court: That's all. Excuse me for breaking in.

(Testimony of Irvin W. Masters.)

Cross-Examination

By Mr. Freeman:

Q. Mr. Masters, when you made these charts and put your measurements thereon, did you measure from the inside of the black line or the outside of the black line, or the middle of the black line?

A. I intended, as far as it is practicable, to have dimensions of the nut, for instance, on the outside of the line. Considering the colored section as being inside the line, [665] the white section, the edge of the white section, was the dimension.

Q. Well, taking Defendants' Exhibit Q, for example, did the overall dimensions go to the outside of the black line or to the inside of the black line or to the middle of the black line?

A. Now, when you speak of the overall dimensions, I would go to the outside of the line, considering the colored portion to be regarded as inside the line.

Q. But when you took a dimension following the drawings which you said you followed, you then measured distances between the outside of the two lines, that is, the two lines that form the thickness of the material, say, of the nut, at the point that I am indicating to you on the drawing?

A. I did.

Q. So that it wouldn't make any difference, so far as the overall measurement was concerned, whether the black pencil line was thick or thin, would it?

(Testimony of Irvin W. Masters.)

A. It would make a difference of two lines blended together.

Q. You just answer my question. I am asking you whether it would make any difference whether we used a thick line in outline of the nut section or a thin line.

A. Not if you truly knew which side of the line you [666] were using for reference.

Q. Up until I asked you the question, it was impossible to know which line you used?

A. That is right.

Q. I am correct, am I not?

A. You are correct.

Q. Now, you referred to some Parker 1935 drawings; correct? A. Yes, I did.

Q. Did you ever make up any fittings corresponding to those drawings? A. Yes.

Q. Do you have any such fittings available?

A. Yes.

Q. Will you produce them?

A. That is 35 and 36, our part 35 and 36. What was the exhibit number?

Mr. Beehler: Defendants' Exhibits DD and EE.

Q. (By Mr. Freeman): And I take it you employed a sleeve with the diameter of the head of the sleeve and the diameter adjacent the nose or toe end of the sleeve to be the same?

A. That's right, cylindrical.

Q. Now, will you tell me when you first began the manufacture as an individual of sleeves having greater diameter [667] at the region of contact

(Testimony of Irvin W. Masters.)

than at the nose or toe end of the sleeve?

A. I don't know the exact date. I presume that—if I may use that word, that we manufactured sleeves with a tapered head from the date that they became a standard with the Air Corps.

Q. You know as a fact, do you not, that that was developed by Parker?

A. I have no other knowledge. I think it was.

Q. You know as a fact, do you not, that the Parker Appliance Company furnished the Air Corps with drawings showing the angle on the sleeve, or the tapered sleeve, using your own words?

A. I don't have first-hand knowledge, but I had always thought you did.

Q. Now, the drawing that you have here produced, Defendants' Exhibit JJ that you made up, it does not have any tapered sleeve head; correct?

A. That is right.

Q. And the device that you make today in response to the—or in compliance with the AN specifications, does include a tapered sleeve head; correct?

A. As a general thing, yes.

Q. I want to know just what you mean by your answer, "as a general thing." [668]

A. Well, Mr. Freeman, except when we make a mistake, you put a taper on there. We did make a mistake and leave it off.

Q. You say you did make a mistake and leave it off?

A. Yes.

Q. Were they inspected?

A. They were.

Q. Were they returned?

(Testimony of Irvin W. Masters.)

A. No, they were not returned.

Q. Are you telling me now that they were used, notwithstanding the fact that they did not comply with specifications?

A. I presume they were or I would have received them back. It was only a recent transaction.

Q. You mentioned earlier that you sent some aircraft company some 6,000 sleeves without the taper.

A. That is correct.

Q. And were they used as NA fittings?

A. AN fittings, you mean?

Q. Yes, sir, AN fittings.

A. They were AN fittings that I delivered.

Q. Well, with or without the sleeve angle?

A. Without the sleeve angle.

Q. Were you requested by the purchaser to furnish AN sleeves? [669]

A. That is right.

Q. And do you call a sleeve that has no sleeve angle on it an AN sleeve?

A. In all other details, it would be an AN sleeve. It would not be complete, of course, without it.

Q. I wish you would answer my question. Do you call a sleeve head without the sleeve head angle on it an AN sleeve?

A. It is not a complete AN sleeve, no.

Q. What was the name of that customer?

A. The Lockheed Aircraft Company.

Q. Is that the basis for your counsel's statement that Constellations were flying wherein the sleeve head angle was not used on the fitting?

A. I had no knowledge that he made that state-

(Testimony of Irvin W. Masters.)

ment. If he did, it didn't refer to this, I don't believe. I don't know.

Q. Well, do you know then from your own contacts with Lockheed whether or not they do use fittings on their Constellations which do not incorporate the sleeve head angle?

A. I don't have knowledge that they intentionally do so, no. If I may a little more fully respond to get at what you want——

Q. Mr. Masters, you just go ahead and tell us all you want to tell us. [670]

A. Well, simply this, that on the Constellations they use the 811-T sleeve and the current design has a sleeve head angle on it. AN has a sleeve head angle. [671]

Q. So that when we talk about the 811 current design, that, then, does incorporate in the sleeve the same sleeve that we have here referred to as the AN sleeve; correct?

A. Yes; it is not the same angle on the 811 by a degree and a half.

Q. But it does include an angle?

A. Yes.

Q. And the region of the contact of the sleeve head is larger in diameter than the other end of the sleeve or nose end?

A. I am sorry, I didn't quite get that question.

Q. Maybe I can reframe it and shorten it. You go along with me that on the 811 the sleeve that is now currently used includes a taper or angle on the outside surface? A. That's right.

Q. So that in the 811 as now used it is your tes-

(Testimony of Irvin W. Masters.)

timony that the sleeve head adjacent the region of contact between the sleeve head and the nut is in closer relationship to the wall of the sleeve than at the toe end or nose end of the sleeve; correct?

A. I can't answer the question as you have asked it. I can state that the diameter at the nose end of the 811 sleeve is smaller than at the shoulder.

Q. So that that wall—and by “that wall” I am referring to the wall of the sleeve itself—it is at a taper [672] or angle?

A. That's right.

Q. And the wall of the nut with which that particular sleeve is used is vertical or straight up and down, assuming that the parts are held in a vertical position? A. That's right.

Q. So that there is a greater distance between the lower end of the sleeve and the inside wall of the nut at the toe, then at the region of contact?

A. That's right.

Q. Do you know when the 811 sleeve was changed to include the angle or taper?

A. My recollection is that it was 1941.

Q. In other words, that was after the issue date of the Parker patent in suit?

A. It was issued in '40, wasn't it?

Q. Yes. A. Yes.

Q. Now, do you have in any of these drawings that you have here produced any illustration showing a taper on the sleeve earlier than 1938?

A. No, I have not.

(Testimony of Irvin W. Masters.)

Q. And I use the date 1938, and I am now going to ask you if you have any drawing or drawings that you have introduced in evidence showing an angle on a sleeve prior to March [673] 2, 1938, the filing date of the patent in suit?

A. I have none.

Q. I think you made some comparisons between Plaintiff's Exhibit 28, drawings, and Defendants' Exhibit JJ; that is correct, is it not?

A. That is correct.

Q. I think you said that there was just as much clearance or room for expansion in Defendants' Exhibit JJ as in the Parker patent in suit, or the drawings Plaintiff's Exhibit 28?

A. I said that, yes, that's right.

Q. Now, do you find in Defendants' Exhibit JJ any indication that would bring about limitation of expansion of the upper portion of the sleeve within the region of contact? A. No.

Q. And, as a matter of fact, there is just as much room for expansion in your Defendants' Exhibit JJ at the upper end as at the lower end of the sleeve; correct? A. Correct.

Q. Have you had any experience with devices like Defendants' Exhibit JJ—and I am now referring to physical devices? A. Yes.

Q. And when did you have that [674] experience? A. Within the last week or two.

Q. That is, whatever experience you had, then, was primarily in connection with your preparation

(Testimony of Irvin W. Masters.)

for testifying in this case? A. That's right.

Q. You didn't have any experience when you were with the Bureau of Aeronautics in, I think, 1935, or so?

A. We conducted a good many tests on fittings, caused them to be conducted, but I don't have an independent recollection of this matter of the clearances in those fittings.

Q. You were in business with a Mr. Jackson in Dayton, Ohio, after you left the bureau, and before you came out West here to enter into the fitting business? A. Not a Mr. Jackson.

Q. You were in business in Dayton, Ohio, in a sort of semi-consulting capacity?

A. That's right.

Q. Will you tell us about that? It was not included in your preliminary remarks as to your activities prior to entering into your present business?

A. All right. Following my work at the Bureau of Aeronautics, Navy Department, Mr. Thompson, who was the engineer at the Naval Aircraft Factory, who actually did the designing work on the fittings, and I, entered into consulting engineering business, Mr. Thompson really was my [675] employee, primarily for the purpose of assisting the Navy in the indoctrination of the services on the NAF fitting. The Weatherhead Company of Cleveland had undertaken to manufacture these fittings for the aircraft industry, and I represented the Weatherhead Company, also, in their relationship

(Testimony of Irvin W. Masters.)

with the government agencies. Our work was sales and engineering and showing the services how they could substitute the NAF fitting for the other fittings which had previously been used, namely, the 800 series, the 810 fittings, and what was then called the Parker triple fitting.

Q. In other words, the NAF fitting was, in fact, a two-piece fitting of Navy design?

A. That's right.

Q. And that is substantially as illustrated by Plaintiff's Exhibit 20 in section?

A. Yes, this, I believe, is an AN body with an 817 sleeve. It is a Chinese copy—it is an identical copy of the NAF.

Q. What I am getting at, Mr. Masters——

A. That's the type.

Q. ——is that it is illustrative of what has here been referred to as an NAF fitting, two-piece type.

A. That's right.

Q. And in the two-piece type that we have here, the [676] nut actually rotates on the flare itself?

A. That's right.

The Court: Mr. Freeman, I think possibly this is a good time to stop this afternoon. It is now 4:00 o'clock. We will recess until 10:00 o'clock in the morning.

(Whereupon, at 4:00 o'clock p.m. an adjournment was taken until 10:00 o'clock a.m., Friday, June 23, 1950.) [677]

June 23, 1950—10:00 A.M.

The Clerk: Further trial, Parker Appliance vs. Masters and Collins.

IRVIN W. MASTERS

the witness on the stand at the time of adjournment, having been first duly sworn, was examined and testified further as follows:

Cross-Examination
(Resumed)

By Mr. Freeman:

Q. Mr. Masters, you were asked on direct examination about the clearances, the angles, the torque, and the threads for the AN fitting, and as to where they originated.

No question was asked you on direct examination with respect to the sleeve angle. Can you tell me where that was originated, so we have the complete story?

A. I believe that originated with Parker Appliance Company.

Q. You testified with respect to non-proprietary fittings. What do you mean by "non-proprietary"?

A. Well, fittings that are in the public domain, public property.

Q. You mean non-patented?

A. That is right.

The Court: He means also, not only non-pat-

(Testimony of Irvin W. Masters.)

ented, but [679] where the patent expired, too. Isn't that true?

Mr. Freeman: That is the equivalent of non-patented, your Honor. That is within the public domain.

The Court: All right.

Q. (By Mr. Freeman): You testified with respect to dollar sales of bodies, sleeves, and nuts, and by that I mean you gave us percentage of one with respect to the other. It is true, is it not, that the sleeves sell at materially less than the bodies?

A. Yes.

Q. So that if we were to translate nuts and bodies into units, and then determine percentages, it wouldn't be 98, 1, and 1, would it?

A. Not in units, no.

Q. Can you give me some idea then of units percentage-wise?

A. It would be a very rough estimate. Are you seeking information as to our current sales or for what period, Mr. Freeman?

Q. Well, I am going to let you determine the period by the same period that you checked when you gave us the dollar sales of 98, 1, and 1. Whatever period you gave us in dollars, you give us the same thing now in units.

A. Well, I think that when I said 98, I was thinking of our experience since the war, say since the beginning of [680] 1946. Since that time I expect that our sales of units—this is purely an estimate, because I haven't made a count on it—would

(Testimony of Irvin W. Masters.)

be in the neighborhood of 8 or 10 per cent of the total pieces that we have sold.

Q. Do you ever receive any orders for sleeves, nuts, and bodies on the same purchase requisition?

A. I believe we have, yes.

Q. And do you sell fittings to such companies as United Air Lines?

A. I sell fittings to the air lines. I don't recall any sales to the United Air Lines.

Q. Well, you do sell to air lines as distinguished from airframe manufacturers?

A. That's right.

Q. And when you sell fittings to airlines, like the Northwest, United, TWA, those are used for repair and replacement parts; correct? For service work?

A. That is my understanding.

Q. And have you at times made sales of complete fittings, that is, a nut, body, and sleeve, of a particular size to make a complete fitting to any such companies?

A. I don't recall.

Q. You haven't checked your records?

A. No, I haven't.

Q. And I take it when you say you don't recall, you [681] are just not acquainted with the fact at the present moment?

A. That is true, that particular fact, no.

Q. Now, yesterday you produced a chart and said you made the drawing from the Air Corps sheets. Do you recall such a statement?

A. Yes.

(Testimony of Irvin W. Masters.)

Q. And that had to do with your Exhibit Q, if I am correct? A. Yes. I have that.

Q. Do you have any of the Air Corps drawings from which you made the chart, Defendants' Exhibit Q? A. Yes, I do. [682]

Q. You were asked, and I want to call your attention to the record on page 598:

“Where did you get the information which you used in making that drawing?”

And “that drawing” there referred to Defendants' Exhibit Q.

And your question was:

“The blue section is the nut. That was made from the current Air Corps 811 BT drawing.”

And then you further answered:

“The red section is the sleeve. That was made from the current Air Corps 811 T drawing of the sleeve.”

And you further answered:

“The green section, which represents the fitting end, was made from the Air Corps 811 fitting drawing. These are to a -8 size.”

So you referred to three Air Corps drawings as current Air Corps drawings; correct?

A. That's right.

Q. Do you have those three drawings that you refer to? A. Yes, I do.

Q. I am going to ask you if the Air Corps ever

(Testimony of Irvin W. Masters.)

put out a drawing marked Air Corps 811 or 811 BT, or 811 T. I am talking now about a government drawing, the Air Corps.

A. Well, the drawings that I referred to are marked [683] AC-811 BT, T, and HT. But I note that they do have the name Parker Appliance at the top. They were approved by the Air Corps. As you know, Mr. Amon, after the industry meeting in which your company was requested to supply these details, forwarded these to me and recommended that we get these approved by the Air Corps. These drawings that I referred to show the details on the particular parts, but they refer to the AC or Air Corps 811 which was issued by the Air Corps, and on that AC-811 sheet it shows several different shapes. As a matter of fact, all the standard shapes, not the odd shapes. So we regarded these as Air Corps drawings, even though they were under the Parker name.

Q. Now, you referred to some Air Corps drawings. Did those Air Corps drawings have any manufacturing dimensions on them, or were they manufacturing drawings?

A. No, that was the agony in the thing.

Q. So in order to manufacture fittings, which you have referred to as the 811 type, it required drawings from the Parker Appliance Company; correct?

A. Except that I did have information which was given by the Parker Appliance Company to the Navy during the standardization program for stand-

(Testimony of Irvin W. Masters.)

ardization. I understand—it is my information that Parker subsequently reneged on that agreement. Nevertheless we still had the information. We didn't need this to manufacture. [684]

Q. I am just going to ask you where did you get that information, or do you have any documents to support your statement about this reneging?

A. I don't have them here. They are in the files of the Navy. It is a statement of fact.

Q. Did you read those statements?

A. Yes.

Q. And are you now testifying from memory?

A. Very clear memory.

Q. It is very clear? A. Yes.

Q. And I am going to ask you about that in just a moment. Now, so that the record is straight, when you said "Air Corps drawings," you were, in fact, in answer to your counsel's question on page 598, referring to Defendants' Exhibits I, J and K, which bear the notation "The Parker Appliance Company, Cleveland, Ohio, U.S.A." thereon; correct?

A. I don't know those by exhibit numbers.

Q. I will show them to you.

A. Those are the drawings I was talking about, yes.

Q. You produced those drawings yesterday, and do you recall that we requested a complete set of drawings some time ago from you?

A. Do you mean the drawings that we regarded as inactive? [685]

(Testimony of Irvin W. Masters.)

Q. Active as well as inactive.

A. Yes, I do.

Q. And in addition to the three drawings which are here in evidence as Defendants' Exhibits I, J and K, you also had other drawings which bear the notation 811 ET? A. Yes.

Q. You did not produce that drawing?

A. No; we have all of them, though.

Q. And that drawing that I just referred to by designation ET is likewise a Parker Appliance drawing?

A. It has the name Parker Appliance on the top.

Q. As a matter of fact, when you received the drawings, those drawings were forwarded to you by the Parker Appliance Company, you didn't get them from the Air Corps?

A. Not that particular set, no. [686]

Q. Well, did you ever get from the Air Corps a set of drawings for the 811 type that did not have the Parker Appliance Company's name thereon—and I am now talking about manufacturing drawings.

A. No, I don't believe that we did, except possibly on specific orders for specific parts.

Q. Now, the drawings that were sent to you, some of which you have here produced as Defendants' Exhibits I, J, and K, were addressed to you personally; correct?

A. I don't know about that. I do believe that some of them were, but which, I don't know.

The Court: What difference does it make? I

(Testimony of Irvin W. Masters.)

think it has been understood, hasn't it, that it doesn't make any difference whether he got them as a person or as a corporation.

Mr. Freeman: It just makes this difference. If there is any question of license and the drawings were sent to him and he turned them over to the corporation, that was an unauthorized procedure. I heard him say here yesterday, with respect to this contention about a license, and it was their counsel or defendants' counsel who called attention to a certain letter, and then Mr. Masters said, "From the drawings forwarded to me with that letter, I could not make an 811 fitting." For some reason, they did not include the rest of the things. I am merely bringing that out.

The Court: My understanding is there is to be no issue [687] made as to whether or not this license was granted to the individual or corporation. I raised that question at the beginning of the trial.

Mr. Huebner: Well, on that, your Honor, our position has been that the individual merged into and became the corporation.

The Court: That's right, and if any liability is attached to the individual, it is also attached to the corporation.

Mr. Huebner: I think that is what we would have to agree to.

The Court: So what difference does it make whether these drawings were sent to him as an individual or a corporation?

Mr. Freeman: It makes this difference, your

(Testimony of Irvin W. Masters.)

Honor. We take the position that the corporation had no license whatever. A license is non-assignable. It is a personal piece of property and it cannot be assigned without the consent of the licensor.

The Court: You have got into the record the letter that was written to Mr. Masters as an individual, and if there is a license, the license depends upon that letter and not upon the plans.

Mr. Freeman: The plans define what the subject matter of the license was. If your honor will recall, yesterday—— [688]

The Court: As far as I am concerned, Mr. Freeman, it doesn't make any difference to me personally whether the license was granted to the individual or to the corporation, because I am considering the two of them as a unit. You are raising the issue that the license granted to the individual could not be transferred and assigned to the corporation.

Mr. Freeman: That is correct.

The Court: That is a matter of law, not a matter of fact. We have got into the record the fact that the license was granted to the individual and then they were incorporated.

Mr. Freeman: If that be so, then we also want to raise the question of law, that a licensee operating under a patent is estopped to deny the validity of the patent. Now, are they doing that here in this court? No. I raise that, then, as a matter of law.

The Court: I think if you want to argue it, you can argue it. I am not saying, however, how far you

(Testimony of Irvin W. Masters.)

will get with it, but at least you have the right to argue it.

Mr. Freeman: The authorities are with us on that, your Honor.

The Court: Well, that is my understanding. If you can show there was a license, that, is, a formal license, I don't know whether this is such a license that would estop Mr. Masters from denying, but if Mr. Masters, that is, the corporation, does not have a specific license, then he is in exactly [689] the same basket as Collins.

Mr. Freeman: That is correct.

The Court: So if you want to make the record——

Mr. Freeman: I want to make the record for this reason, your Honor, and I do not want to appear to be arguing with you, but yesterday Mr. Beehler asked Mr. Masters whether or not from certain drawings he could make one of these fittings, and Mr. Beehler referred to the contention of the plaintiff, and I just want to bring out that there was more to the drawings that were furnished to Mr. Masters than what Mr. Masters had before him when he answered Mr. Beehler's question.

The Court: Well, you go ahead and make your record. I am not going to deny you or anybody else the right to make your record.

Mr. Huebner: Your Honor, may I make one comment on this subject, as long as we are on the point? My recollection is that the letter of notification from Parker purporting to terminate the li-

(Testimony of Irvin W. Masters.)

cense was addressed to the corporation, so that the Parker Appliance Company has treated Mr. Masters, the individual——

Mr. Freeman: I want to see that letter.

Mr. Huebner: ——Mr. Masters, the individual, and Masters, the corporation, as one and the same.

The Court: Well, I don't think this is the place to [690] argue the question of law. This is only the place at this time to get the facts before the court and into the record. I think possibly it is more important to get the facts into the record than it is before the court. So you can proceed.

Mr. Freeman: I think I am in duty bound to straighten out Mr. Huebner on this last statement of his.

The Court: Hasn't that revocation been introduced in evidence? I think it has been introduced. I think it is before the court. What is the number of it?

The Clerk: Exhibit 16, your Honor.

The Court: Let me see it. It seems this is addressed to the individual, not the corporation.

Q. (By Mr. Freeman): Turning to your Exhibit II and Exhibit JJ, I note in one case you use minimum clearances and in another case you use maximum clearances. Will you tell me why the exhibits were so drawn?

A. Well, in the manufacture of parts, parts that are within the tolerances, either the maximum diameters or the minimum diameters that are specified, within the tolerances, are acceptable for use

(Testimony of Irvin W. Masters.)

and such parts as in the one instance were made with a maximum metal condition would have the minimum clearance, and in the other those that were made with a minimum metal condition would have the maximum clearance. We simply wanted to show that fittings made to the 1935 design within those tolerances could have and would have [691] as much clearance as would be accepted by satisfactory in the current fittings. [692]

Q. Isn't it true that you made a comparison of Defendants' Exhibit JJ with Defendants' Exhibit II?

A. Sure, we took advantage of the tolerance.

Q. And those drawings were made for the purpose of comparison? A. Certainly.

Q. And in one case you were talking about minimum clearances and in another case you were talking about maximum clearances?

A. Yes; but we were always within the tolerance.

Q. Wouldn't it have been a little bit better to have made both of them, using the same yardstick for making both of the drawings for purposes of comparison? A. Not for us.

Q. Not for you? A. That's right.

Q. On Defendants' Exhibit O, I take it that the term "in 6 inch size" is really an error?

A. That's right. In the -6 size.

Q. What should it be?

A. In the -6 size.

Q. I don't want to confuse you. Shouldn't that have been size 8?

(Testimony of Irvin W. Masters.)

A. You are correct. You did confuse me.

Q. I didn't intend to confuse you. I am just trying to [693] straighten you out.

A. It should be the -8 size. I don't know how that got on there. Let me see if our reproduction has it.

It is on the reproduction. It certainly should not be there.

Q. Likewise, on Defendants' Exhibit P you also have "in 6 inch size"; I take it you there intend to mean size 6?

A. I didn't put that on there. I don't know why I overlooked it. It shouldn't be there at all.

Q. Didn't you make these drawings?

A. Not those notes down at the bottom. I made the drawings of the sections, but some notes were added down at the bottom by my counsel or his assistants.

Q. I take it on Defendants' Exhibit Q "in 8 inch size" is likewise an error?

A. That's right.

Q. Who put on Defendants' Exhibit Q "assembly of parts AC 811 T"?

A. That is in somebody else's handwriting or printing, not mine.

Q. As a matter of fact, you never saw a drawing that was numbered "AC 811 BT"?

A. What do you mean?

Q. In other words, drawings are numbered; correct? [694]

A. I am afraid I don't understand what you

(Testimony of Irvin W. Masters.)

mean. Here is a drawing that says "AC 811," and "811 BT."

Q. But the drawing is an "AC" type; correct?

A. Well, that is cutting it pretty fine.

Q. The drawing number is 811 BT; correct?

A. Correct.

Q. And it is a Parker drawing?

A. Yes, it has Parker's name at the top.

Q. So that the proper identification on Defendants' Exhibit Q might be "AC type" for the type of device or fitting there illustrated; correct?

A. It is an "AC" type.

Q. And the drawing for the nut is No. 811 BT; correct? A. That's right.

Q. These 6,000 sleeves that were sent out, which did not have the sleeve head angle on them, you said they were used?

A. I didn't say that. I said that they were not returned to us. I presume they were used.

Q. They were inspected, though, were they not?

A. They went through the inspection department.

Q. That is, your inspection department or the inspection department of Lockheed?

A. We do inspect everything that comes into our shop, [695] but we evidently overlooked that thing. We didn't produce these sleeves; we had them produced on the outside, and they were shipped to the customer, and they have an inspection department.

(Testimony of Irvin W. Masters.)

Q. But of your own personal knowledge, you don't know whether they were inspected, or not?

A. I only know what was told me by the inspector?

The Court: May I ask counsel a question?

Mr. Freeman: Yes.

The Court: Another issue has come up, evidently, from the statement of the witness. Supposing it was established by the witness here that he didn't make these sleeves, that he purchased them from the outside?

Mr. Freeman: That doesn't make any difference. He sells them, and he can have them made. He doesn't escape infringement if he has some other shop make them for him. They were made for him.

The Court: Is the infringement in the selling or making?

Mr. Freeman: Both. There are three things, the right to manufacture, the right to use, and the right to sell, and the violation of any one of those——

Mr. Huebner: We concede,——

Mr. Freeman: When I am through, you can talk. The violation of any one of those rights is an infringement. So he has both manufacture and [696] sale.

The Court: Mr. Huebner, then you agree it doesn't make any difference?

Mr. Huebner: Yes. I was just going to save counsel some unnecessary words.

The Court: But he wanted to make the record.

Mr. Huebner: Apparently. He is correct in his

(Testimony of Irvin W. Masters.)

statement on the law, that if an article infringes, the manufacture of it or the use of it or the sale of it constitutes an infringement. However, if the sleeves which Mr. Masters or his company purchased and resold were licensed sleeves, then there would be no infringement attaching. I don't know what the facts are.

The Court: The fact that he had them made on the outside and then brought them into his shop and resold them doesn't relieve him?

Mr. Huebner: That doesn't relieve him if the person who manufactured them for him was not licensed.

The Court: Well, this is the first intimation I have had that he didn't make these sleeves.

Mr. Huebner: I didn't know it, either.

The Court: All right.

Mr. Freeman: I just wanted to know, your Honor, because I want to know what planes those are in, because I don't want to ride in that particular plane. [697]

Q. (By Mr. Freeman): Mr. Masters, do you recall the conversation that you had with Mr. Parker on March 10, 1942, about the time when you were getting into the fitting business?

A. I don't recall that particular date. I recall other conversations, many of them, earlier than that. If you care to refresh my memory as to where it took place, it might help.

Q. Well, do you recall at any time talking to Mr. Parker, that you had gotten into the fitting business

(Testimony of Irvin W. Masters.)

because of the preparedness program, and the heavy demand for fittings, and that you wanted to get yourself in the clear?

A. Well, I don't recall that specifically, no.

Q. It is true that your business set-up, that is, getting into the manufacture of fittings, was brought about by the great demand, first, during the days of preparedness and then, of course, World War II?

A. Well, that made a particularly good opportunity, yes, but I was pretty full of fittings long before that.

Q. Well, of course, you were full of NAF fittings, that is, the two-piece fitting?

A. Well, I was pretty well filled up with the three-piece fittings, too.

Q. You didn't do any independent development or engineering with respect to three-piece fittings, did you? I [698] mean of the kind that you manufacture? A. No.

Q. Now, is it true that when you made Exhibit O, that you used the size 8, and I am now going to ask you, if you made a comparison of the relative proportions of size 8 with the size 4 fitting, would the parts look a little different?

A. In what respect, Mr. Freeman? If you are talking about a dural fitting or a steel fitting—

Q. Yesterday, you made a comparison between plaintiff's drawing, Exhibit 58, and your own drawing, and I am wondering if you took into consideration the plaintiff's drawing, which is in evidence and which has been testified to as representing a

(Testimony of Irvin W. Masters.)

size 4 fitting, whereas your drawing represents a size 8 fitting.

A. Let me see that 58 before I answer that, please.

Q. Here it is.

A. Plaintiff's Exhibit 58 had a single coniform flare seated against the sleeve—on the sleeve—and I did not take into consideration whether it was one size or another. It is in the series where there is a single flare there. I believe my statement would be the more true of size 4, however, namely, that the so-called toe of the sleeve is nearer the end of the flare on the tube than would be the case with the size 8. [699]

Q. I am handing you—

A. I would like to change that statement. I got it just reversed. On the size 4—No. That is right. This illustrates just the nose end being nearer the end of the flare than it would be on the size 4.

Q. There is a little difference, is there not, between the 8 and the 4?

A. Oh, there are differences throughout the whole series. I can't carry them in mind without referring to the drawings. I didn't have time to make all the layouts.

Q. So that a comparison of an 8, which is your drawing, and a comparison of the size 4, which is our drawing, might bring about the appearance of some differences?

A. There might be, but I still think your drawing 58 is disproportioned on the size 4.

(Testimony of Irvin W. Masters.)

Q. I hand you a drawing, Plaintiff's Exhibit 48, and I will ask you to state if that properly illustrates a size 4 fitting. I want to call your attention to the fact that that has been referred to by the witness Wolfram as a drawing of a size 4 initially made 10 times size and then reduced half, so that it is five times size.

A. Well, I would say that this drawing which you just handed me, Plaintiff's Exhibit 48, is more nearly representative of what I believe to be the truth, namely, the contact of the end of the sleeve is much nearer the middle of the [700] flare than in the Exhibit 58.

Q. Do you go along with me that Plaintiff's Exhibit 48 is a fair and accurate representation of a size 4 fitting?

A. I can't testify to that, because there are no reference lines for dimensions. It looks like it, but my recollection was that it was not so stated in the deposition as being exactly.

Q. Just what deposition are you referring to?

A. Amon's deposition.

Q. I call your attention to Defendants' Exhibit P, and will ask you to state if it is not a fact that the clearance between the inside cone-shaped portion of the sleeve and the outside surface of the sleeve is sometimes referred to as a differential angle in the trade?

A. I never heard the term differential angle until the Amon deposition was taken.

(Testimony of Irvin W. Masters.)

Q. Is that the first time you heard of the use of differential angle? A. That's right.

Q. In connection with fittings?

A. That's right.

Q. Upon what did you base your answer, then, on page 608 of the record, and I now read:

“Q. Do you recall in connection with the 817 sleeve the pitch of the flare on the inside of the nut? [701]

“A. Yes. It is 33 degrees.

“Q. Do you recall what the pitch of the angle is on the nose of the body, which is regularly used with that nut?

“A. That is 37 degrees.”

And then you were asked:

“Is or is that not in your opinion a differential angle?”

Then you answered:

“That is my understanding of what is meant when differential angle is referred to.”

A. That's right, and that is based on my education in the deposition.

Q. Isn't it a fact that in the deposition the space that I called to your attention, that is, the space bordered by the inside of the sleeve and the outside of the flare, is the part referred to in the deposition as a differential angle?

A. No, that is not my understanding of what was finally arrived at as the definition. There was confusion between your own witnesses as to what was meant. [702]

(Testimony of Irvin W. Masters.)

Q. Well, there was certainly no confusion as to your understanding as a result of your yesterday's testimony?

A. No; we wound up with an understanding that the differential angle was the difference between the outside angle of the flare or the inside angle of the sleeve, and the angle on the body, which results from consideration of the thinning out of the flare.

Q. You referred to the combination of fittings, on page 607 of the record. Can you tell me where they use AN fittings with 811 fittings, that is, where they interchange the parts?

A. Do you mean some company that does it?

Q. Yes.

A. Well, I know one customer has told me, the Lockheed Company, that they use the 811 bodies in the Constellations, the P-38's, because they had the ship designed to that, and they can't very well change the dimensions. They also use 811 nuts, because it is necessary to use the nuts to get them to screw on the bodies. They are not interchangeable with the AN threads throughout. But that they use, all the time, AN type flares, 10061, and the AN 819 sleeves. Also, your own manual shows the interchangeability of parts.

Q. And when you talk about interchangeability of parts, you are talking now about the use of the AN sleeve or the sleeve with the angle on it, with the nut and body of the 811 type? [703]

A. That's right. And there are other combina-

(Testimony of Irvin W. Masters.)

tions. It is quite confused. You have to follow the chart to know what to do.

Q. Well, let's take the specific one that you know something about. You are now talking about Lockheed's Constellation; correct?

A. That's right.

Q. Do you know whether or not Lockheed, since the introduction of the sleeve head angle by Parker, has used straight wall sleeves?

A. I have no knowledge of that.

Mr. Freeman: I am wondering, Mr. Huebner, can you set me straight as to where you obtained your information that 811 fittings with the straight sleeve angle, that is, the straight sleeve head, was used? You referred to Constellations.

Mr. Huebner: Where did I say that? If you will recall it to me, I will look it up.

Mr. Freeman: On pages 236 and 237 of the record. The court said:

"Let's assume this, that we take the sleeve here and the outside collar of the sleeve was straight, perpendicular, always been used that way. It gave a coupling, but it was not entirely satisfactory. Nobody knew what the trouble was. [704] They experimented. Finally, the Parker people determined to try a certain angle, and it worked. That's all they did, is to change the outside collar of the sleeve.

"Mr. Huebner: From a straight one to an angle.

(Testimony of Irvin W. Masters.)

“The Court: From a straight one to an angle. Aren’t they entitled to a patent?”

“Mr. Huebner: If there was that problem, and if the others had it, and if this was a sudden flash of inspiration or genius, that instead of making it straight, you made an angle and you got a wonderful new result, then they might be entitled to a patent.”

Then you continued your answer:

“But airplanes are flying today. Constellations are flying today without this patent. There wasn’t any real problem. There wasn’t any flash of genius. It was just an engineering idea put on there in order to go through the Patent Office and get a patent.”

Mr. Huebner: That was in my opening statement. If you want to know the facts——

Mr. Freeman: I wasn’t reading from your opening statement. I was reading from page 236 and page 237, when the [705] court made certain inquiry about fittings.

Mr. Huebner: If you want to know the facts, you can ask them of the Lockheed witness that you have arranged to have here in court. We both know his name.

Mr. Freeman: I am asking you.

Mr. Huebner: This not the time to make any such comment or disclosure.

Mr. Freeman: Do you intend to prove the statement that you made?

(Testimony of Irvin W. Masters.)

Mr. Huebner: I don't know. You are producing the witness. I was willing to, but you had him lined up before I contacted him so I let him alone.

Mr. Freeman: That concludes our cross-examination of this witness, except with the understanding that I do want to interrogate him with respect to contributors, some of the letters that he wrote, which is really part of our case. We can go into that now or I can wait, as long as Mr. Masters is going to be around, until we get back onto our side of the story.

The Court: You are not going to present evidence along that line until you present me with a case or two. If you have a case, I would like to read it.

Mr. Freeman: Yes. One that I call your Honor's attention to is the case of Universal Oil Products Co. v. Winkler-Koch Engineering Co., reported in 27 Fed. Supp. 161, by Judge [706] Holly of the United States District Court for the Northern District of Illinois.

Incidentally, that is the famous case involving an oil-cracking process that has gone up and down in all the courts of the country.

In that particular case——

The Court: Don't argue the case; just give me the citation. I want to read the case.

Mr. Freeman: I want to call the court's attention, then, to one paragraph of the decision by Judge Holly.

(Testimony of Irvin W. Masters.)

The Court: Is that the only decision you have?

Mr. Freeman: The one we selected. I didn't know that your Honor wanted a brief on it.

The Court: There are other decisions on it?

Mr. Freeman: There are other decisions to support our position.

I want to read this one paragraph:

“In my opinion good faith requires parties participating in and controlling a case, **but who** are not parties of record, to disclose to the court the fact of such participation, and failing to do so, such parties are not in position to avoid the effect of the judgment as a bar on the ground that there is lack of mutuality of estoppel, if the opposing party subsequently learns [707] of their participation.”

I want to just call your Honor's attention to the fact that Judge Holly did not permit, initially—he overruled a motion when they tried to get into the inquiry and determine the facts, but when the facts were actually developed during the trial, he then changed and came to the conclusion that I have just called your Honor's attention to.

What I say here is that we are entitled to develop with Mr. Masters, as an adverse witness under the rule, whether or not there has been participation by others, and maybe we can set up sufficient information, in the form of discovery, which would justify, then, your Honor coming to the conclusion as Judge Holly did. All I am saying

(Testimony of Irvin W. Masters.)

now is that we are entitled to delve into that particular subject.

The Court: We will reserve any ruling upon the matter at the present time, and if I rule in your favor, why, I will allow you to go into this matter with Mr. Masters.

Mr. Freeman: I also want to call your Honor's attention to another case, which is reported in 85 U. S. Patent Quarterly, *Kendall Co. v. Tetley Tea Co., Inc.*, wherein in the findings of fact the District Court, or the trier of fact, also came to the conclusion that others were contributing to and conducting the suit, and included that in his findings of fact.

The Court: Before we proceed any further, I think we will take our customary morning recess. We will now recess until 15 minutes after eleven.

(A recess was taken.) [708]

Mr. Beehler: Just one or two questions on re-direct examination.

Redirect Examination

By Mr. Beehler:

Q. You testified yesterday, Mr. Masters, in connection with some tests which you made when fittings were drawn up and expanded. In connection with those tests, did you make any measurements of the outside of the sleeve head after the fitting was uncoupled and the pressure released?

(Testimony of Irvin W. Masters.)

A. I did in a few instances.

Q. And what was your finding?

A. That there was no appreciable set or permanent increase in the diameter of the sleeve. In one instance here in a -8 size dural sleeve, the expansion at the shoulder under full torque was .0005 or one-half of one thousandth, and it returned to the original dimension when the pressure was released.

In the midsection of the sleeve head, there was under a torqued condition two thousandths expansion, that is, .002, and when the pressure was released, there was a remaining set of .0005, or one-half a thousandth.

There likewise was one-half thousandth permanent increase in diameter of the toe end of the sleeve, that is, .0005.

The Court: You would say that there was some expansion, [709] wouldn't you?

The Witness: A permanent expansion that remained there after the release of the pressure?

The Court: Yes.

The Witness: A little, yes, very little.

The Court: Well, regardless of whether it was little or much, there was some.

The Witness: That is right. In the midsection and toe end, there was about 25 per cent of the expansion under pressure.

The Court: Well, then, the fact of the matter is when the nut is screwed down upon the sleeve head, there is actual expansion.

(Testimony of Irvin W. Masters.)

The Witness: That is right.

Q. (By Mr. Beehler): Did you make any comparable measurements when the coupling was over-torqued?

A. Yes. Here is a size 8 sleeve that was torqued to 400 inch pounds. The expansion at the shoulder was .004 under pressure and it retained that expansion when it was released.

The midsection retained most of the expansion under pressure, and the nose section had a permanent set of .006.

Q. Mr. Masters, subject to court order, you had an opportunity to secure and examine, I believe, a great number of Parker drawings that had been used in the manufacture of [710] three-piece fittings. You have, have you not, made an examination of the dimensions of those drawings throughout the years?

A. Yes, I have.

Q. What did you find, Mr. Masters, was the case in connection with the amount of clearance between the outside of the sleeve head and the inside of the nut throughout the period of years from 1930 to date?

A. Just a moment. I will have to refer to my notes here and the drawings.

Mr. Freeman: Are you referring to drawings other than those that have been already introduced? If so, I am going to object to this as not proper redirect. Some of the questions were not proper redirect and I kind of let them go, but if we are

(Testimony of Irvin W. Masters.)

going to get into that again, I am going to make the objection.

The Court: Are these new drawings?

Mr. Beehler: If you wish us to produce the drawings from which these observations are made, we will be glad to put them in evidence.

The Court: No.

Mr. Freeman: That was not my objection. If he is going into something that is entirely foreign to what has already gone in, then I am going to make my objection that it is not proper redirect.

The Court: I think you'd better wait until you put your case in chief in. This witness was called as an adverse witness——

Mr. Freeman: No, he is now testifying, your Honor, for the defendants.

The Court: That's right, too. I had forgotten. Well, the objection is overruled then.

The Witness: The drawings in 1930 disclosed that the tolerances were very close, and the maximum clearance between the nut and the sleeve was only .002 of an inch.

In 1935, it had increased to .009 in the 6, 8, and 12 size, but the 4 size had increased to .007.

In 1940, the maximum clearance between the nut and the sleeve in the 4 size was 11/1000ths; in the 6 size was 13/1000ths; in the 8 size it was 13/1000ths, and the 12 size was 13/1000ths.

The minimum clearance in 1930 on the 6 size, the 8 size, the 12 size, was zero.

(Testimony of Irvin W. Masters.)

In 1939—I am speaking of the 811 fittings now—the minimum clearance in the 6 size in 1935, I mean, the minimum clearance was 5/1000ths in the 6 size, 5/1000ths in the 8 size, 5/1000ths in the 12 size.

About 1939 or 1940, the minimum clearance in the 6 size was 7/1000ths, the minimum clearance was 7/1000ths in the 8 size, and 7/1000ths in the 12 size.

So the clearances were increased throughout the years, you see. [712]

Q. How do the clearances compare to current practice?

A. The current practices are of those last dates mentioned.

Q. The current practice is about what it was in 1940, then? A. That's right.

Q. Calling your attention to Defendants' Exhibit JJ, colored section No. 6, in the No. 6 size, according to the notation, dimensions have been taken from the Parker 1935 drawings, were there sizes other than the 6 size as of about that same period, which show clearances comparable to the clearance shown in that particular instance?

A. They were within tenths of thousandths of being the same, but this was the maximum clearance.

Q. Directing your attention now, Mr. Masters, to Defendants' Exhibits depicting the 811 fitting, and particularly Exhibits I, J, and K, I call your attention to the title block in the middle of the lower portion of the drawing, underneath the de-

(Testimony of Irvin W. Masters.)

scription of the particular part, where the legend appears in parentheses "AC 811 type"; is it not your understanding the AC 811 type refers to an Air Corps fitting?

A. Mr. Beehler, I am sorry I don't know them by Exhibits I, J and K. I think I know what you mean, but I want to be sure. [713]

Q. Here they are.

A. Yes, I understand these to be Air Corps 811 fittings.

Q. I also call your attention to a legend immediately above the title block reading as follows: "Protected by U. S. Letters Patent No. 1,893,442"; was it or was it not your understanding that fittings of that description were protected by the patent, the number of which I read?

A. Yes, I took the drawings at their face.

Q. That applies to each one of Exhibits I, J, and K, is that correct? A. That's right.

Mr. Beehler: No further redirect.

Recross-Examination

By Mr. Freeman:

Q. Mr. Masters, with respect to these drawings that you referred to minimum clearances in 1930 for sizes 6, 8 and 12, would you have more clearance today if you provided the same clearance at the top of the sleeve, that is, within the region of contact, when you provided a sleeve head angle or tapered sleeve?

(Testimony of Irvin W. Masters.)

A. I don't believe I understand the question. Perhaps you better reread it.

Q. With the tolerances as you have here testified for the year 1930, with respect to a straight wall sleeve, would [714] you have greater clearance or room for expansion at the lower end of the sleeve if you provided a sleeve head angle?

A. Why, certainly.

Q. And all of your measurements or the data that you took from drawings, in each case related to a straight wall sleeve?

A. Yes, I took it off the drawings as they were.

Q. And in each case that was the clearance at the top of the sleeve, as well as at the bottom of the sleeve?

A. That's right.

Q. So that if you started with the same clearance at the top of the sleeve, and you used the sleeve head angle, you would then have greater room for expansion at the lower end of the sleeve, without possibly coming in contact with the wall of the nut; correct?

A. You would have greater clearance, but it wouldn't be sufficient to provide the space that you now have in the fittings.

Q. You go along with me that the lower end of the sleeve now may expand freely, without coming into contact with the wall of the nut?

A. Well, it doesn't come in contact with the wall of the nut within the torques that are normally applied.

(Testimony of Irvin W. Masters.)

Q. We are agreed that all of the minimum clearances that you referred to for 1930, and then I think you jumped [715] over to 1935 and then up to 1940, for sizes 6, 8 and 12, which were the only sizes that you referred to, all had to do with a straight wall sleeve? A. That's right.

Q. You talked about a fitting that you tested that took what we might call a permanent set; correct? A. That's right.

Q. And in that case the sleeve expanded initially, I believe you said, 2/1000ths of an inch?

A. Yes, that's right.

Q. And then when you released the nut or made a disconnection of the fitting, as would be the case in actual practice, the sleeve contracted $1\frac{1}{2}$ /1000ths of that original 2/1000ths expansion; correct?

A. That's right, in two zones, B and C.

Q. And it is true that if that fitting were used a second time you would start with at least one-half thousandth less clearance than initially?

A. That's right.

Q. Have you carried on any further or continued application of the same fitting, say, to the extent of using it fifteen times?

A. No, I have not in these tests.

Q. Might we assume from your experience in the fitting business that if there was a half thousandth permanent set after [716] the first use, that there might be an additional permanent set after the second use?

A. Well, there probably would be some, but it

(Testimony of Irvin W. Masters.)

wouldn't be in directly proportioned increments, because in the second application the parts are better mated to start with.

Q. You don't know, then, from your own experience, either as a manufacturer of fittings or in preparation for your testimony in this case, what would happen with respect to a sleeve that was used ten times, that is connected and disconnected ten times?

A. Well, I don't know, except this information which is public property, that these fittings do pass the specified test, which requires assembly and disassembly several times.

Q. Well, it is 15, to be exact.

A. And if it expanded each time in proportion to the first time, why, it would be way outside the inside diameter of the nut very quickly.

Q. You have tested fittings in your own plant, that is, where you have assembled the nut, the sleeve, and the body, and have torqued up the nut to the proper torque required by AN specifications; correct?

A. That's right. [717]

Q. You have done that many times?

A. Yes, quite a number of times.

Q. In that case, you then actually took a body with a piece of tubing, flared the tubing, included a sleeve and a nut, and made a complete fitting assembly?

A. For the test purpose, yes.

Q. You, in addition to that, I take it, disconnected the same parts?

(Testimony of Irvin W. Masters.)

A. Not in every instance.

Q. Disassembled?

A. We left many of them assembled in the torqued condition, did not take them apart.

Q. I take it you still have some in the assembled condition? A. That is right.

Q. And did you in these tests or experiments, whatever you want to call them, disconnect some of them? A. Yes.

Q. And then following disconnection of a particular fitting, did you reconnect that fitting for a second operation?

A. Yes. There is one of the tests reported here, I think there was just two disconnects and reconnects.

Q. I am asking now of those you have tested and worked on and operated during the last three or four years as [718] a manufacturer, have you in any case assembled and disassembled a fitting more than once?

A. I believe so. I haven't heretofore conducted any formal tests. Just general observation as to how they were.

Q. When I say you, Mr. Masters, I am also including any people in your employ, that is, within your organization.

A. We don't have a hydraulic laboratory or occasion to conduct tests like that.

Q. Have you ever sent any of your fittings out for hydraulic laboratory tests so that you might know what they do or accomplish?

(Testimony of Irvin W. Masters.)

A. We sent a number of our fittings to Wright Field for test, to see that fittings made by our process of manufacture were satisfactory.

Q. And when you send those out, you send the same component number, that is, a size 6 sleeve to go with a size 6 body and a size 6 nut?

A. No, we did not. We just sent bodies. The question was whether or not the parts made from plates or extrusions were as good as parts made from forgings.

Q. Have you ever sent out a complete fitting, that is, the three parts, the sleeve, the nut, and the body for test purposes? A. Not that I recall.

Q. At no time? [719]

A. Not that I recall.

Q. Then the only test that you ran for purposes of determining what happened after the first connection of a fitting was the one you have here referred to wherein the sleeve took a permanent set?

A. Well, the only one, I would say, was in connection with the tests just recently run.

Q. You didn't testify about more than one, did you, on your redirect, or at least, maybe it was two. I am just trying to get the facts, Mr. Masters?

A. Well, I believe I was only called upon to testify as to one. I see notations made on two of them here that were that way.

Q. Would you give us the facts then with respect to the second one?

A. Yes. There was one that was torqued to 200 inch pounds, size 8, dural assembly. The expansion

(Testimony of Irvin W. Masters.)

at the shoulder of the sleeve was zero. That was, of course, no fit.

The expansion midsection of the sleeve was .00275. The set was one thousandth, that is, .001.

At the toe, the expansion was .0035 and the set there was 5/1000ths or 5/ 10 thousandths, .0005.

Q. So that the second time that that particular sleeve would be used, the angle would be a little bit less; [720] correct?

A. The sleeve head angle you are talking about, on the outside?

Q. That is right. A. Yes, it would.

Q. Did you testify on one of the devices that you tested that the sleeve took a permanent set of 6/1000ths?

A. I believe I did, in excess of 6/1000ths. No, hold on a minute. Let me look at my tables here. No, I did not testify as to the set; I simply testified as to the expansion, Mr. Freeman.

Q. Well, I may be wrong, but I made notes when you testified that you said the nose retained 6/1000ths set. I may be wrong.

A. What specimen were you talking about or what exhibit?

Q. The one you torqued up to 400 pounds.

A. Well, I don't have those figures here.

Q. You just a moment ago, on direct examination, said you torqued one up to 400 pounds. Were you then testifying from some notes that you have?

A. That's right.

Q. Well, assuming that for the moment, let me

(Testimony of Irvin W. Masters.)

ask you this question, and we can check the record a little later: If the nose had expanded or took a permanent set of $6/1000$ ths, [721] then in the 1935 drawings on the 811 fittings which you referred to, with a $5/1000$ ths clearance, you would have actually had contact with the wall of the sleeve; correct? A. What size was that on?

Q. Oh, size 8.

A. If it was at the minimum clearance, there would have been a contact. If the parts were at the maximum clearance, there would not have been.

Q. I am just using the figures you gave us from the Parker drawings wherein you said that the '35 drawings showed $5/1000$ ths clearance, minimum clearance, in the sizes 6, 8, and 12.

A. That's right.

Q. And your testimony with respect to one of the demonstrations or tests that you made in over-torquing size 8 to 400 pounds—I thought you said that the nose expanded $6/1000$ ths, that is, took that kind of a set. I am now asking you, if it did take such a set, would it not be a fact that the nose would engage the wall of the nut?

A. If the parts were at minimum clearance.

Q. I am just taking the very figures you gave us.

A. That is what I gave you. Those figures were for the minimum clearance.

Q. And under those conditions, you would have a sleeve engaging the nut? [722]

A. If it did take that set, yes.

Q. And, thereafter, any additional expansion of

(Testimony of Irvin W. Masters.)

the sleeve would be backed up or resisted by the constraining force of the nut proper; correct?

A. That is right.

Q. And in such case the rotation of the nut would be resisted by its engagement with the wall of the sleeve?

A. If the sleeve clung fast to the tubing, [723] yes.

Q. There would be that frictional resistance of two mating surfaces engaging each other?

A. Sure, there is under any condition.

Q. And, likewise, the condition that we have here set up would in a measure prevent the backing away of the nut for removal purposes or disengagement or disconnection?

A. It might hinder it, and if the interference became great enough, prevent the nut from separating from the sleeve.

Q. So that in connection with over-torqueing, the sleeve head angle does provide greater clearance at the lower end of the sleeve?

A. When you say "lower," you always mean the toe end?

Q. Yes, the smaller diameter end.

A. Certainly, if there is more space there is more space.

Q. That prevents the possibility of sticking in the event of some over-torqueing of the nut?

A. That gives you some advantage, yes.

Q. And you usually find out that advantage out in the field where a repair or replacement is to be

(Testimony of Irvin W. Masters.)

made, as distinguished from initially when the airplane is just being assembled in the plant?

A. That I don't know from experience.

Q. Well, in the event of an over-torqued nut, or in the event of engagement of the angle on the sleeve, that wall, [724] with the wall of the nut, you usually find that out when you bring about a disconnection or disassembly of the parts; correct?

A. Well, that would logically seem so. I have not had experience with it.

Q. Have you had any experience in the service of aircraft in combat or in airports with respect to connections and disconnections made in hydraulic systems?

A. Not directly, Mr. Freeman, in modern aircraft.

Q. When we talk about modern aircraft, I take it that you are taking in 'since 1940 on?

A. That's right.

Q. So you have little or no experience with respect to service requirements in connection with the fittings of the kind here involved?

A. Not personal experience, no. I have quite a bit of information on the situation; not experience.

Q. You do agree with Mr. Wolfram that jamming of the sleeve with the nut is not desirable?

A. That's right. If the parts can remain free, there is greater ease of assembly.

Q. And you likewise agree with Mr. Wolfram that the greater area of contact between the shoulder of the sleeve and the shoulder of the nut, the more

(Testimony of Irvin W. Masters.)

uniform and the better the distribution of pressures applied by the nut on the sleeve [725] as the nut is brought home?

A. Well, I don't believe that that is critical.

Q. Are you now saying that there are certain tolerances with respect to the amount of contact and distribution of pressures?

A. Yes, there is a considerable safety factor in all design of aircraft components. I would say that that safety factor must be wide enough that slight variation in that dimension wouldn't make much difference.

Q. Do you then go along with me, using your own term, that you have a greater safety factor when you have greater area contact between the shoulder of the nut and the shoulder of the sleeve?

A. Well, you don't gain anything when you exceed a requirement. I couldn't answer on that. Obviously, if you develop strength throughout the other sections of the components, proportionate to the increased load that you could impose on the two surfaces by increasing them, why, you would have greater total strength. But I don't believe that that is the case.

Q. It is true, is it not, that in fittings, particularly those used in hydraulic systems of airplanes, that it is desirable to have the unit as small as possible and yet have maximum strength?

A. Well, of course there is always the desire to keep [726] the weight down and a part small. But the matter of reduction of size also can be carried

(Testimony of Irvin W. Masters.)

too far. To assemble the parts you need some size in your parts to carry the loads. It is a balancing of a good many factors there. Usually a fellow can juggle the factors to suit what he wants to do.

Q. Do you go along with me that small dimensional differences are important in hydraulic fittings?

A. It depends upon the situation, whether or not they are important. I wouldn't say when you have a safety factor of 5 to 1, in other words, that the strength of your component is 500 per cent of what is required, that a reduction of an area of 6 or 7 per cent would affect anything much.

Q. What is the factor of safety used in connection with hydraulic fittings for aircraft wherein you have 1500 pound pressure systems, do you know?

A. That I am not currently too familiar with, but I believe that design factors are kept in the 4 or 5 to 1 ratio.

Mr. Freeman: That is all.

Mr. Beehler: At this time I wish to offer into evidence as Defendants' Exhibit next in order Parker Catalogue Price List No. 202 C, which was previously offered in evidence as Defendants' Exhibit A in the Cleveland depositions.

The Court: It may be admitted. [727]

The Clerk: PP.

(The catalogue referred to was marked Defendants' Exhibit PP, and was received in evidence.)

Mr. Beehler: I also wish to offer in evidence the deposition of Charles H. Wagner, Jr., taken May 6, 1949, in Cleveland.

The Clerk: QQ.

The Court: It may be admitted.

(The deposition referred to was marked Defendants' Exhibit QQ, and was received in evidence.)

Mr. Huebner: We will offer in evidence, also, your Honor, a certified copy of the file wrapper and contents of the Parker patent 2,212,183, which is the patent in suit.

The Court: It may be received.

The Clerk: RR.

(The document referred to was marked Defendants' Exhibit RR, and was received in evidence.)

Mr. Freeman: Does that include the references, Mr. Huebner?

Mr. Huebner: I will offer them separately. The references, naturally, are recited in the file wrapper, but they will go in as separate exhibits. [728]

I next offer in evidence a stipulation in the case of Parker vs. Masters. This stipulation relates to the use of uncertified copies of patents, and also to the fact of a certain publication, photostat of which is attached, and Mr. Freeman and I have an understanding that the identical stipulation may be assumed to be in effect with respect to the Collins case.

Mr. Freeman: That is correct. We raise no technical objection.

The Court: It may be received.

(The document referred to was received in evidence and marked Defendants' Exhibit SS.)

Mr. Huebner: I have to offer in evidence, assembled in a folder, certain prior patents which were pleaded in the answer, in addition to some Parker patents that are already in evidence. I think they might be marked as a main letter exhibit with subdivisions or numerals.

The Court: It may be so marked.

The Clerk: Exhibit TT.

Mr. Freeman: Mr. Huebner, are those all that were set up in the answer, or have you selected——

Mr. Huebner: We have missed one or two that were in the answer. I can't tell you exactly.

Mr. Freeman: Have you got on extra copy of those?

Mr. Huebner: No. I assumed you had ordered some for [729] yourself.

Mr. Freeman: All right.

Mr. Huebner: If you don't have any, we can loan you our expert's set perhaps.

Mr. Freeman: I have got a set following the answer, but I thought you changed them somewhat? So that's all right.

Mr. Huebner: These are arranged, and I would like for the record to show what they are, if the court please. These are arranged in numerical order

and I would like to have the record show which subdivision each patent is, so that there can be no mistake. The Abbott patent, 46603, will be the first in order.

The Clerk: TT-1.

Mr. Huebner: Buzzell 177686.

The Clerk: TT-2.

Mr. Huebner: Guyer 182435.

The Clerk: TT-3.

Mr. Huebner: Guyer 196084.

The Clerk: TT-4.

Mr. Huebner: McConnell 290446.

The Clerk: TT-5.

Mr. Huebner: George, 326425.

The Clerk: TT-6.

Mr. Huebner: Potts, 406060. [730]

The Clerk: TT-7.

Mr. Huebner: Anderson, 535236.

The Clerk: TT-8.

Mr. Huebner: Jordan, 654735.

The Clerk: TT-9.

Mr. Huebner: Dossert, 7721836.

The Clerk: TT-10.

Mr. Huebner: Reed, 964,315.

The Clerk: TT-11.

Mr. Huebner: Brown, 1,058,542.

The Clerk: TT-12.

Mr. Huebner: Bachman, 1,352,342.

The Clerk: TT-13.

Mr. Huebner: Benzion, 1,680,080.

The Clerk: TT-14.

Mr. Huebner: Hewitt, 1,820,820.

The Clerk: TT-15.

Mr. Huebner: And Parker, 1,977,241.

The Clerk: TT-16.

(The documents referred to were received in evidence and marked Defendants' Exhibits TT, TT-1 to TT-16, inclusive.)

The Court: Well, Mr. Huebner, before you produce any more documents, I think we will recess. We will now recess until 2:00 o'clock this afternoon.

(Thereupon, an adjournment was taken to 2:00 p.m.) [731]

Friday, June 23, 1950—2:00 P.M.

(Other court matters.)

The Clerk: Further trial in the Parker case.

Mr. Huebner: For the convenience of the court, I will hand up three photostatic pages corresponding to the photostatic sheets in the stipulation, Defendants' Exhibit SS. I will ask Mr. Bumb to take the witness stand.

RICHARD C. BUMB

called as a witness by and on behalf of the defendants, having been first duly sworn, was examined and testified as follows:

The Clerk: Your name?

The Witness: Richard C. Bumb.

(Testimony of Richard C. Bumb.)

Direct Examination

By Mr. Huebner:

Q. Mr. Bumb, were you subpoenaed to appear and testify in this case? A. I was.

Q. By whom are you employed?

A. North American Aviation.

Q. Where are they located?

A. Inglewood, California.

Q. Will you recite very briefly your personal history in connection with any hydraulic installations or equipment? [732]

A. I first did work on hydraulics about the first of the year of 1934, and have been with it since that date with the exception of approximately two and a half years.

Q. What is the nature of your work in connection with hydraulics?

A. At the present time I am what is classified at North American as a hydraulic group leader, which means that I have charge of the people who design, install, and generally supervise hydraulic installation in aircraft.

Q. Do you have any personal knowledge of plumbing equipment, and by that I include tubes and fittings, in the North American Navion airplane? A. Yes, I do have.

Q. And particularly in the North American commercial Navion airplane? A. Yes.

Q. In your commercial airplanes is your company required to use the Army-Navy standard spe-

(Testimony of Richard C. Bumb.)

cifications on the hydraulic fittings, the flare tube fittings, that they employ?

A. That question will have to be answered not yes or no. I believe generally speaking the CAA suggests the use of AN standard fittings on commercial aircraft. However, in the case of the Navion, specifically, we were able to demonstrate satisfactory performance with other fittings [733] than the AN fitting.

Q. Did North American Aviation employ in the commercial Navion aircraft manufactured by that company other than the AN standard fittings?

A. Yes, it did.

Q. Was that selection by the choice of the corporation? A. Correct.

Q. What type of fittings were employed?

A. They used the commercial Weatherhead, so-called inverted flare, or what is generally known as the SAE inverted flare fitting.

Q. Is that a two or three-piece fitting?

A. That is a two-piece.

Q. About how many planes were manufactured by North American Aviation having that Weatherhead inverted flare fitting?

A. Approximately 300.

Q. What pressure system was required in those planes? A. A thousand pound system.

Q. What kind of material went into the fittings?

A. The fittings generally were brass.

Q. During what period of time were these planes manufactured?

(Testimony of Richard C. Bumb.)

A. About from the first of 1935, I would estimate, for [734] the next 18 months.

Q. Did you mean '35, or '45?

A. No; '45.

Q. From '45——

A. '45 to the middle of '46, approximately.

Q. Have you made any personal observation as to whether the plumbing or piping in the Navion was satisfactory?

A. It was quite satisfactory.

Q. Did North American Aviation have any transaction with Ryan Aeronautical in connection with fittings? A. Not to my knowledge.

Q. Did North American Aviation sell the manufacturing rights on the Navion thereafter, about 1946 or '47 to Ryan Aeronautical?

A. Yes, it did.

Q. And, therefore, North American no longer manufactures the Navion? A. Correct. [735]

Q. Are you able to assign any reason why North American Aviation chose the Weatherhead SAE inverted flare type fitting, rather than the AN standard, for the Navion airplane?

A. There were probably two reasons for that. One was the fitting was cheaper and, of course, to build a commercial aircraft, cheapness is an important item. Then the other item is that inasmuch as the airplane was to be in the hands of the general public, that it was considered it was more convenient to be able to buy the Weatherhead fitting at any super drug store.

(Testimony of Richard C. Bumb.)

Q. I assume, and I am leading you because it is a well-known fact, North American Aviation does manufacture some aircraft for the government, doesn't it? A. Correct.

Q. Will you give the model identification of a couple of the important models?

A. The F-86, called the Sabre, and the B-45.

Q. The B-45 is a bomber? A. Correct.

Q. And the F-86 is a fighter plane?

A. Correct.

Q. In the current production of those planes, which are for the government, your corporation does use a three-piece standard AN fitting, doesn't it? [736] A. That is correct.

Q. And that is because you are required to do so? A. Right.

Q. Are those three-piece AN standard fittings leakproof or troublefree?

A. Not absolutely.

Q. What has happened that you know of in connection with trouble or difficulty?

A. We have had, particularly on the F-86, a reasonable amount of leakage, usually being associated with cracked flares of the aluminum bronze type.

Q. Have you had any experience with reference to sealing of the steel tubing on these AN standard fittings?

A. Only that a considerably higher torque value is needed to accomplish sealing than the Army recommends, and a certain amount of failure to get sealing at any torque.

(Testimony of Richard C. Bumb.)

Q. What does the Army recommend on, for example, a No. 4 seal fitting?

A. It recommends an average—it has a recommendation of a maximum and a minimum and, I believe, the average of that recommendation on a quarter-inch is about 70-inch pounds torque.

Q. Even at double that, do you obtain uniform sealing of the steel fittings?

A. No. North American's own policy on torque is to [737] approximately double the Army's suggestion and at that point we find in some cases we need even excess torque.

Q. Now, these AN fittings North American has obtained and used, were any of them manufactured by Parker Appliance Company? A. Yes, sir.

Q. Who all does your corporation buy fittings from?

A. We buy fittings from Collins and from Parker and in minor quantities from four other concerns.

Q. When your corporation orders what you and I have referred to as fittings, does it order a fitting as a three-piece assembled unit, or do you order the individual parts that are to be eventually assembled?

A. We order them as individual pieces.

Q. And is it your practice, that is, your company's practice, to order one part, a quantity of one part from one company, and another part from another company?

(Testimony of Richard C. Bumb.)

A. I couldn't answer that authoritatively, but I would say it is my opinion, yes, that the parts are ordered indiscriminately.

Q. That is true so far as you are aware of your company's activity, is that right?

Mr. Freeman: He has already given you his answer that he was only giving his opinion. I don't see how you can ask him what his company does. I object to it. [738]

Mr. Huebner: You mean you move to strike out what he said? It is too late to object.

Mr. Freeman: I still make my objection.

The Court: There is a question before the court. I think the objection is good to the last question.

The Witness: I could go on further with the original question and say my opinion would be based on the general operation of that sort of thing, that the parts would be ordered indiscriminately from one company or another.

Mr. Freeman: I renew my objection, your Honor.

The Court: Overruled.

Q. (By Mr. Huebner): Now, have you observed any more trouble with, let us say, the fighter, the F-86, or the bomber, the B-45, or vice versa?

A. Yes. We have experienced more trouble on the F-86 than we have on the B-45, yes.

Q. Can you explain that difficulty?

A. The difficulty seems to be primarily connected with the ease of installation. The B-45 is a larger airplane and has a better opportunity to get at the fittings, whereas the F-86 is a small congested air-

(Testimony of Richard C. Bumb.)

plane with more difficulty of getting at the fittings. That is, at least, considered to be the situation. However, the matter might also be because of the element of vibration.

Q. In your position as hydraulics man for [739] North American, would you say that the AN standard three-piece fittings have been a panacea for what problems were encountered in the hydraulic installations in airplanes? A. No.

Q. Are you aware of any propaganda on the part of the aircraft companies to go from a three-piece flared type fitting, of which the AN is merely one example, to a flareless tube type of fitting?

A. Yes, I am.

Q. Will you tell the court what you know about that?

A. Well, there has been generally—during the past two and two and a half years, there has been some considerable effort made on the part of aircraft manufacturers for the use of the so-called flareless fitting. A considerable amount of laboratory testing has been done by several companies, which seems to indicate the superiority of that type of fitting.

Q. You are familiar with the general indication of an AC-811 type fitting and the AN standard fitting, I presume? A. Yes.

Q. Did North American Aviation manufacture any trainers using the AC-811 fitting?

A. Yes, we did. [740]

Q. About how many?

(Testimony of Richard C. Bumb.)

A. I believe that we manufactured a tremendous number of them. I wouldn't swear, but I believe we went up to 50,000 trainers. It was in the thousands, in the tens of thousands.

Q. Did most of those employ an AC 811 fitting?

A. Yes, they all did.

Q. Did you experience any amount of trouble with those trainers? And I am confining my question relating to trouble to the hydraulic system, and particularly the fittings. Do you want the question read?

A. No, I believe I have it.

I would say that up until the time we were able to get the proper tubing we had considerable trouble. We had a reasonable amount of trouble in the early phases of the manufacturing of that airplane to find the proper tubing to use. But after we began using what we considered the proper tubing our troubles were low on leakage.

Q. What would be the comparison as to trouble that your corporation experienced with the AC 811 systems on the trainers as against the AN steel used in other airplanes?

A. I would say there would be an appreciable increase of trouble, a great deal more trouble, being experienced today than there was then.

Q. What would be your personal preference with respect [741] to the use of fittings in aircraft today? Would you recommend the use of the AN standard three-piece fitting, or the use of a flareless fitting?

(Testimony of Richard C. Bumb.)

Mr. Freeman: I object to that as immaterial. A flareless fitting isn't involved here.

Mr. Huebner: We are contrasting what you think is the greatest thing the world has ever seen with this witness, who is a practical man in hydraulics, thinks would be better.

The Court: Objection overruled.

Mr. Freeman: I will withdraw my objection. You go ahead and let him answer.

Mr. Huebner: The court has overruled the objection.

The Court: You may answer.

The Witness: North American has gone along with the greater proportion of hydraulic aircraft manufacturers in recommending the use of the Ermeto fitting, or the flareless fitting.

Q. (By Mr. Huebner): That word "Ermeto," is that the name of an individual whose name is attached to a flareless type of fitting?

A. That is the name of the individual who is associated with the type of fitting.

Q. I want to repeat, do you personally subscribe to the opinion of the aircraft companies, which you say have expressed a preference for Ermeto or flareless type tubing? [742]

A. I frankly have a question in my mind on that. I think the Ermeto or flareless fitting is far superior as a fluid sealing means; I question whether in some installations it is as good. It is an installation problem, not a fitting problem, in the strictest sense.

(Testimony of Richard C. Bumb.)

Mr. Huebner: You may cross-examine.

Cross-Examination

By Mr. Freeman:

Q. Will you name the four other companies that your——

A. I am sorry I can't. I only noted in my mind the two people involved. I can tell you we procure from Collins and Parker, but I can't tell you who else we procure from.

Q. Will you be kind enough to look that up and call Mr. Huebner so that he can make a statement on the record of the names of those four companies for me? A. I can.

Q. Your company manufactured, you say, thousands of trainer planes? A. Right.

Q. When did that program start?

A. That program started back about in 1936, I believe.

Q. Did that program continue on into 1940?

A. Right.

Q. '41? [743] A. Right.

Q. '42? A. Right.

Q. '43?

A. In fact, it is continuing today. Not in the manufacturing stage, but in the reworking stage.

Q. Do you use the 811 fitting today?

A. We are still using the same fitting.

Q. Are those fittings with the sleeve being provided with an angle on the outside?

A. I don't know.

(Testimony of Richard C. Bumb.)

Q. So that when you said 811 fittings, you do not know whether those included the old style 811 with the sleeve—that is, the wall of the sleeve parallel with the wall of the nut, as distinguished from the tapered sleeve; correct?

A. No, I couldn't say that.

Mr. Freeman: That is all.

The Court: May I ask the witness a question? Do you understand what is meant by the Parker type fitting?

The Witness: I believe I understand some of the elements that they claim there.

The Court: Well, your company uses a great many of the Parker type fittings, do they not?

The Witness: That's right, the old 811.

The Court: Would you consider this fitting that you used [744] as a great commercial success, so great that it overshadowed any other fitting in the market?

Let me put it this way: Up to the time of the use of the Parker fitting there had been many fittings used; when the Parker type fitting came along with a particular sleeve, was that such a commercial success that all the companies, or your company, immediately started using that particular fitting?

The Witness: Of course, relative to the use of fittings with aircraft manufacturers who are manufacturing for the government, it is not a matter of particular choice. I mean we have the so-called AN standard parts, which when they are made in AN standard parts, we have to use them or bear the

(Testimony of Richard C. Bumb.)

burden of the proof of proving that something else is better. So the general tendency, therefore, is when a part has been made an AN part, to use it.

The Court: Well, where you had a choice of fittings, where it wasn't designated that you use an AN fitting, would you consider the AN fitting so superior that you didn't use any other fitting?

The Witness: We didn't use it in the cases where we had the choice.

The Court: You didn't use it where you had the choice?

The Witness: No.

The Court: That is all. [745]

Mr. Huebner: Mr. Harold Adams.

HAROLD W. ADAMS

called as a witness by and on behalf of the defendants, having been first duly sworn, was examined and testified as follows:

The Clerk: Your name, sir?

The Witness: Harold W. Adams.

Direct Examination

By Mr. Huebner:

Q. Mr. Adams, what is your age?

A. Thirty-nine.

Q. Where do you reside?

A. Santa Monica, California.

Q. By whom are you employed?

A. Douglas Aircraft Company.

(Testimony of Harold W. Adams.)

Q. This is preliminary, so I will ask a leading question. You are experienced in the matter of hydraulic fittings, are you not? A. Yes, sir.

Q. Now, will you briefly or at such length as is necessary to incorporate all the material subject matter, outline for the court for some years past your experience in connection with hydraulic equipment, and particular hydraulic fittings?

A. My close association with hydraulic equipment and [746] fittings started in 1934, when I was appointed hydraulics engineer for the Douglas Aircraft Company. From 1934 till February, 1941, I acted in this capacity as hydraulics engineer for the Douglas Aircraft Company. At that time I was advanced to a position where I was in charge of the design work on the mechanical and equipment installations, which included power plant design, armament, and electrical instrument design. That lasted until April, 1945, and since that time I have been chief design engineer at the Santa Monica plant of the Douglas Company.

Q. How many men are in your department there? If it isn't a confidential matter.

A. That is all right. Do you mean technical men, or everybody——

Q. Everybody that comes under your general direction as design engineer.

A. There would be about 500 altogether.

Q. Over any period of time have you supervised work of the designing installations for piping and carrying of fluids under pressure?

(Testimony of Harold W. Adams.)

A. Yes, during all the period since December, 1934.

Q. Were you at any time connected with the Society of Automotive Engineers Committee for Standardization of Aircraft Hydraulic Equipment?

A. Yes, I was the first chairman of that committee. [747] At the time the committee was started in furtherance of their effort, this was Committee A6 of the Society of Automotive Engineers, I was chairman, and I remained chairman from June, 1941, until August, 1943, at which time I resigned due to pressure of other work. [748]

Q. Have you written any papers in connection with design or shop problems in high pressure hydraulics?

A. Well, I have written a number of papers, one which was quite well known and was published in the SAE Journal. That was a paper that was entitled, "Design and Shop Problems in High Pressure Hydraulics." That discussed the work the Douglas Aircraft Company had been doing with systems operating at pressures of 3,000 pounds per square inch. Most of the systems until that time had been operating on pressures of 1,000 pounds per square inch. This paper described the Douglas Aircraft Company's work which was instrumental in getting a good many of the other aircraft companies to increase the pressure of their hydraulic systems to 3,000 pounds per square inch.

Q. About October, 1940, did you have anything

(Testimony of Harold W. Adams.)

to do with suggesting a modification of the AC 811 tube fitting?

A. Yes. In the fall of 1940, we had an airplane crack up, that is, it made a wheels-up landing, which damaged the airplane considerably, as a result of a mechanic over-tightening the fitting and squeezing the tube until when pressure was applied to it, it blew out and lost the fluid from the hydraulic system in flight, so that the landing gear was inoperative and the airplane cracked up.

So I determined then, as part of my job as hydraulics engineer, to do something about the fittings to prevent their [749] failure as a result of over-tightening. So I did do this work, reported it, and sent a report to the Air Corps. The Air Corps, I think it was in February, 1941, wrote a report in which they acknowledged the Douglas Company's contribution and recommended that this modification be incorporated in the AC 811 fitting.

Q. What was that modification?

A. That was the cutting away of the inside of the sleeve on the smaller size of fittings up to and including the -6 size.

Q. Would that be what is illustrated in Defendants' Exhibit P?

A. Yes, that is right. The fitting originally had an angle and we cut it way at a considerably greater angle at this point.

Q. You are pointing out to the court the additional angle at the nose end of the fitting?

A. That's right, the 18½-degree angle.

(Testimony of Harold W. Adams.)

Q. I mean on the nose end of the sleeve.

A. I am pointing to the $18\frac{1}{2}$ -degree angle.

The Court: What was the effect of the cutting away of that sleeve?

The Witness: The fittings, when they are over-tightened severely, crush the tube out from between the sleeve and the nose of the fitting in such a way that only a parallel portion [750] of tube is left. The tube is simply crushed out completely from between the sleeve and the nose of the fitting, so that only a paper-thin portion, you might say, of the original tubing material is left there.

Then when pressure is applied, a little vibration, or anything of that sort is applied, the tube is free to simply back right out of the fitting and, of course, there is no joint any more.

So the cutting away of this angle has the effect, when the fitting is badly over-tightened, the inner portion of the sleeve never comes up against the nose of the fitting, so that when the sleeve finally bottoms and stops its forward movement as the nut is over-tightened, there is still a sort of a tapered flare remaining, and this tapered flare is sufficient to hold the pressure and keep the tube from backing out of the fitting.

Q. Would this fitting, which I hand to you and which has not yet been marked, illustrate the pinching off of the tube from over-tightening, to which you have referred?

A. That's right. This photograph was——

Mr. Huebner: Just a minute. Let me have it

(Testimony of Harold W. Adams.)

marked in evidence so that the court may have a copy.

The Clerk: UU for identification.

(The exhibit referred to was marked Defendants' Exhibit UU for identification.) [751]

The Court: It may be marked for identification.

Mr. Huebner: I would like to have it marked in evidence, your Honor, and shortcut things that way. It illustrates the testimony, and I will later identify where it came from.

The Court: It may be received in evidence then.

(The exhibit referred to was marked Defendants' Exhibit UU and received in evidence.)

Q. (By Mr. Huebner): Now, proceed with your answer. While you are at it, in giving your answer, state, if you know, where this photograph originated?

A. Yes. This photograph was taken under my direction at the time that I made this series of tests to improve the AC811 fitting. This one shows a fitting which has been very severely overtightened. Points of interest are that the nut has failed at its extreme right-hand in the photograph, right-hand end, and that the tube is completely squeezed out from the between the fitting and the sleeve. In fact, the outer end of that flare has been pinched off and squeezed up into the space between the threads in the nut and the body. The tube is now simply

(Testimony of Harold W. Adams.)

a parallel piece of tubing which can pull out from the fitting at relatively low force.

This was made at the Douglas Aircraft Company, and this No. 22697 is a Douglas Aircraft Company photograph number 752.

Q. Now, referring back for a moment to your qualifications and experience, have you written any textbooks on hydraulics?

A. Yes. I wrote a textbook which was published by McGraw-Hill in 1943, entitled "Aircraft Hydraulics," which is fairly well known in the industry.

Q. Is that book widely used as a textbook for the design of aircraft hydraulic systems?

A. Well, I have gotten some pretty good royalties from it. It has been sold widely, at any rate.

Q. Do you have any attachment to the California Institute of Technology?

A. Yes. I have given a series of lectures to the graduate students of the California Institute of Technology for a good many years on the subject of landing gear and hydraulic system design.

Q. Have you read the Parker patent in suit?

A. Yes, sir.

Q. Have you examined the prior patents which have been marked in evidence as Defendants' Exhibits TT, with sub numbers 1 through 16, inclusive?

A. Yes, I have.

Q. And have you examined the two Parker patents which are referred to in the patent in suit as

(Testimony of Harold W. Adams.)

being the forerunners of the patent in suit? [753]

A. Yes.

Mr. Freeman: Did you give the court a copy of the prior patents?

Mr. Huebner: I think the court has a copy in that red folder.

The Court: No, I haven't a copy.

Mr. Freeman: I have an extra work copy. I would be glad to hand it to the court for convenience.

Mr. Huebner: Here it is right here.

Mr. Freeman: That is the original.

Mr. Huebner: The court can use that, or we can give him an extra copy.

Mr. Freeman: I have an extra copy he can keep and mark up, or do anything he wants with.

Mr. Huebner: All right. Thank you.

Mr. Freeman: You can check it over to be sure I haven't slipped anything in it.

Mr. Huebner: I am sure you wouldn't be that bold, Mr. Freeman.

Q. Now, will you go with me down through the patents that are in the prior art book and briefly point out to the court what each one discloses, identifying them as you go along by the name of the patentee and the number of the patent. We will start with Abbott No. 46603.

A. The patent, Abbott 46603, illustrates a three-piece [754] fitting in which the body, referring to Fig. 1, in which the body is designated by the larger letter C, the nut by the large letter B, the

(Testimony of Harold W. Adams.)

sleeve by the small letter b, and the tube by the large letter A. The nut is tightened up on the body and forces the sleeve into contact with the back of a flare on the end of the tube, which is then forced into contact with the nose of the body.

Mr. Huebner: Now, before we go to the next one, your Honor, I want to make a comment as we go along concerning whether the patents were or were not file wrapper reference. This patent, Abbott, was not cited by the Patent Office during the prosecution of the patent in suit.

Q. Now, referring to the next one, which is Buzzell 177686, will you go through that?

Mr. Huebner: That was not a file wrapper reference, either, your Honor.

A. Buzzell 177686 illustrates in the cross-section in Fig. 2, if we refer to the left-hand—to either hand, actually, but the left-hand end of Fig. 2, a three-piece fitting in which A at the bottom of the figure designates the body, F at the top of the figure designates the nut, G designates the sleeve.

The nut F, forces the sleeve G onto a tube designated by I, which is forced over the nose of a conical ridged, in this case, conical surface on the Body H. [755]

Q. Refer now to Guyer 182435.

Mr. Huebner: And this was not a file wrapper reference, your Honor.

A. Guyer 182435 shows a three—well, this is a union that has essentially the same arrangement as the three-piece fittings which we have been de-

(Testimony of Harold W. Adams.)

scribing. Referring to Fig. 1 at the left-hand end, E is a nut, D is a sleeve, C is a body, and A is a tube.

Referring to Fig. 2, the tube has been flared so that it fits over the double conical nose of the fitting C and is held onto the fitting by the nut E through the sleeve D.

Q. Refer next to the Guyer patent 196084.

Mr. Huebner: Which, your Honor, also was not a file wrapper reference.

A. Guyer No. 196084 in Fig. 2, or the right-hand end of Fig. 3, illustrates a three-piece fitting, which is essentially the same as the previous Guyer patent, in that it has a body C with a double conical nose. The tube L has been flared and slips over the nose of the body. The flare is held against the body by a sleeve A, which is held in place by a nut B.

Q. Turn next to McConnell 209446.

Mr. Huebner: This was not a file wrapper reference, your Honor.

A. McConnell 209446 shows in Fig. 1 a T-type three-piece [756] fitting. If we examine the left-hand end of this fitting, we will find a body B, a nut d, a sleeve C, and a tube A. The body B has a conical nose and threads on the outside. The nut d is threaded over the body and has a shoulder which presses the sleeve against the shoulder on the sleeve A, and forces it against the back side of the sleeve C—rather, which forces it against the back side of the flare on the tube A, thus forcing the tube against the conical nose. [757]

(Testimony of Harold W. Adams.)

Q. Refer next to George 326,425, which was not a file wrapper reference.

A. George 325,425 shows a fitting which is intended as a union between two tubes. The body a has a 90-degree face, against which the tube a—against which the sleeve a forces the tube. Apparently some of the sealing is accomplished between the sleeve a and the tube on the left side designated B and some of it appears to be accomplished by the sealing of the tube against the perpendicular face of the body a. There is also an unlettered nut which holds the sleeve against the body.

Q. The next one in order is Potts 406,060, which was not a file wrapper reference.

A. Potts 406,060 shows in Figure 2 or 3 a three-piece fitting with a body c, having a conical end and a tube a flared to fit over this conical end, a sleeve i which in this case is split as shown in Figure 4, and held in place on the back of the flare, or, rather, by pressing on the back of the flare forces the flare onto the nose of the fitting c. This is done by means of the nut f.

Q. Next refer to Anderson 535,236, which also was not a file wrapper reference.

A. Anderson 535,236 shows—referring in this case to Figure 3, the lower figure—shows a body g having a conical nose, which appears to have an insert H. The flared [758] tube J is slipped over the conical nose of the fitting, a sleeve is used to press the tube against the conical nose of the fitting, and that is held in place by the nut L.

(Testimony of Harold W. Adams.)

Q. The next one is Jordan 654,735, not a file wrapper reference.

A. Jordan 654,735 shows in Figure 2—well, I think you would have to call this a four-piece fitting, in that the nose b appears to be a separate piece—no, I remember the description of this fitting. b is in effect a flaring tool which is left in place after it has been used to flare the tube, and the sealing is accomplished by means of the sleeve c pressing the flared tube a against the nose of the fitting which is apparently E. This is done by means of the nut g.

Q. Now, we come to the first in this group of file wrapper references, Dossert 772,136.

A. Dossert 772,136 shows—I don't know whether you call it a three or four-piece fitting, it has a body 2 with a separate nose 5, this is in Figure 1, a tube 7 which is flared and slipped over the separate nose 5, and is held in place by means of the sleeve 11, which is held onto the main body or the right-hand part of the body No. 2, by means of the nut 12 or 15. It seems to bear both numbers.

Q. Now, turn to Reed 964,315.

A. Reed 964,315 shows—well, in the left-hand end it [759] shows—I might mention that the right-hand end appears to be a simple plumber's ground coupling. The left-hand end shows a three-piece fitting in which a body g has a conical nose, the tube 1 is flared and is slipped over this conical nose and is held in place by means of the sleeve g, which is pressed by means of a shoulder against the

(Testimony of Harold W. Adams.)

back side of the flare by the nut 3, which is screwed onto the body g.

Q. Turn next to Brown 1,058,542, not a file wrapper reference.

A. Brown, 1,058,542 shows in the left-hand end of Figure 2 a two-piece fitting similar in general appearance to the Weatherhead inverted flare fitting or the Parker standard fitting. However, this fitting consists of the nut 9 which is screwed into the body 18, the body 18 has a male conical surface down in the bottom of the threaded recess. The tube is held onto this conical surface, the tube 7 is held onto this conical surface by a tapered seat on the inside of the nut 9. In Figure 3 it can be seen that the angle on the male cone differs from the angle on the inside of the device which holds the tube against the fitting.

Q. The next one in order is Bachmann 1,352,342, not a file wrapper reference.

A. Bachmann 1,352,342 shows a three-piece fitting, referring to Figure 4, the lower right-hand figure, it has a body 3 having apparently approximately a conical surface, a [760] tube 8 is flared and is held onto this surface by means of a sleeve 14, which is pressed against the back of the flare by the nut 9, it is screwed onto the body 3.

Q. The next one is Benzion 1,680,080, not a file wrapper reference.

A. Benzion 1,680,080 shows in Figure 4, referring to the left-hand end of the figure, a body C with a nose on which the tube a has been flared and

(Testimony of Harold W. Adams.)

slipped over the nose on the body C and is held in place by a sleeve d, which has a shoulder against which the nut n bears, the nut n is screwed onto the body C to hold the sleeve and flared tube onto the conical nose of the fitting, or the nose of the fitting, it isn't quite conical.

Q. By the way, in examining this patent did you observe any comment in the description of it relative to a clearance between the nut and the sleeve?

A. Well, I would have to look at it again.

Q. Will you glance at it a moment?

A. Let's see.

Mr. Freeman: To save you time, start reading with line 81, column 2.

Mr. Huebner: Thank you, Mr. Freeman.

The Witness: He reads faster than I do.

A. "Furthermore, due to the loose fit of the flanges n, n" [761]

That is what we would call a nut.

"over the sleeves D,D"

which we would call a sleeve.

"and of the nuts N, N over the shoulders or flanges d, d, and the engagement of the inner faces of the flanges n, n with the outer faces of the flanges d, d in planes perpendicular to the axis of the spice-coreduct C, the parts are permitted to adjust themselves and binding is avoided."

Q. (By Mr. Huebner): Now, refer to Hewitt 1,820,020, which is a file wrapper reference. That

(Testimony of Harold W. Adams.)

is the second one of this group noted to be a file wrapper reference.

A. Hewitt, 1,820,020 shows in Figure 1, I guess you would call it a four-piece fitting, it is a three-piece fitting with a separate nose, it has a body 6, a separate nose 8, a tube 10, a sleeve 13, and a nut 17. The nut 17 through the sleeve holds the flare of the tube against the nose on the part 8.

Q. The final one in this booklet is Parker 1,977,241, which was a file wrapper reference. Now, will you give some time to a discussion of what this early Parker patent shows?

A. Parker patent 1,977,241——

Mr. Huebner: Is that in your Honor's book?

The Court: I don't see it. [762]

Mr. Freeman: Both Parker patents are in the book.

Mr. Huebner: We can loan Mr. Beehler's copy to the court.

Mr. Freeman: The court has it. It is No. 18 in the book, your Honor.

The Court: Yes, I have it.

Mr. Huebner: This particular Parker patent has not been before the court until it was offered with the prior art patents.

Q. (By Mr. Huebner): Now, will you discuss that, Mr. Adams?

A. Yes. This patent in Figure 1 shows a three-piece fitting having a body 1, a nut 3, a sleeve 2, and a tube 7. The nut forces through the sleeve the flared tube against the nose of the body 1.

(Testimony of Harold W. Adams.)

From reference to Figure 3 more details of the fitting can be seen. The shoulder through which the nut forces the sleeve axially against the fitting body is formed as a spherical surface becoming the radius r' , the lowest letter on Figure 3. The nut, or, rather, there is a clearance between the sleeve and the nut. The surface 5 of the body and the surface 16 of the sleeve are both spherical radii. A line has been drawn tangent to the ends of the spherical radii, such as to define the conical surface that approximates most nearly this spherical surface. That angle on the sleeve is noted as being 50 degrees; the [763] corresponding angle on the nose of the fitting is noted as being 40 degrees. The head of the fitting is cut out somewhat, and it will also be noted that there is a clearance 17 between the sleeve and the nut. Now, referring to Figure 4, which shows the same fitting with the tube in place, it will be noted—which shows the fitting in the hand tight or untightened position, it will be noted that the sleeve 10 contacts the back of the flare at the tip of the fitting, which is noted as 16 in Figure 4, and that toward the base of the sleeve or where the inner diameter of the sleeve meets the angular surface on the inside of the sleeve there is a clearance, in other words, where the tube flare starts at the root of the flare there is a clearance at the time that the contact is made at the tip of the flare. It will also be noted that the contact between the sleeve and the tube takes place adjacent to the tip of the flare.

(Testimony of Harold W. Adams.)

In Figure 2, the fitting is shown in a slightly misaligned position, and in this case the clearance between the sleeve and the nut has increased on the right-hand side of the fitting and has decreased, apparently, to contact on the left-hand side of the fitting. This is in the region adjacent to the shoulder.

It is a little difficult to tell what the clearance is from the patent. However, it appears that the toe of the sleeve must be out of contact with the nut, since the rotation. [764] the angular rotation or angular misalignment, has been accomplished about the point y, and therefore in the region of the shoulder, since it is farther from the center it would move farther sideways than in the region of the toe of the fitting. [765]

Mr. Huebner: I have some more questions on this patent. Does your Honor want me to pursue them or stop now?

The Court: We will stop now for our afternoon recess, since you have suggested it. We will now recess until 3:15.

(Recess.)

Q. (By Mr. Huebner): We are still talking for a moment, Mr. Adams, about Parker patent 1977241. I believe you referred to the head of the body as being spherical, is that right?

A. Yes.

Q. And the internal countersink or end surface of the body, is that also slightly spherical?

A. Yes, it appears to be.

(Testimony of Harold W. Adams.)

Q. Then the sleeve is brought down into finger tight position upon the end of the flared tube, is it correct to say that the nose or end of the sleeve has initial contact with the outside surface of the flared tube at the end of the flare?

A. It is at the end or very close to the end.

Q. When the sleeve is then wrench tightened, is there a full contact between the inside surface of the sleeve and the outside flared surface of the tube?

A. Yes. That is shown in Fig. 1 and Fig. 2.

Q. As an engineer familiar with hydraulic fittings, what difference, if any, does it make whether you use a [766] spherical head on the body and a corresponding or approximately corresponding physical end on the end, or whether you use a straight coniform flare?

A. I don't believe there would be any appreciable difference in the operation of the fitting. This spherical face might permit slightly more misalignment, the one that is shown in patent 1977241.

Q. Having this Parker patent in front of you, if you, as an engineer, decided that it would be preferable to use one of the coniform flares known to the art, would there be any problem involved in changing this particular configuration to a coniform flare? A. Oh, no.

Q. Now, what is the purpose of the annular recess on the outside of this sleeve in the Parker patent 1977241?

(Testimony of Harold W. Adams.)

A. It is to provide flexibility so that the toe of the sleeve can expand when the sleeve is tightened down onto the back of the flare.

Q. If one seeing this particular form found that—or even considered that the end of the sleeve might be too flexible, what would the obvious thing be with an engineer to do to make it more rigid?

A. Well, we have this problem all the time and we add material wherever we have to increase the rigidity of a part. [767]

Q. In this case, what would you do, add material to fill up that outside recess? A. Yes, sure.

Q. And if you did that, would you have what some of the other patents or at least one of the other patents refers to as a solid head?

A. Yes.

Q. Would there be any problem involved in turning this cut-away sleeve of the early Parker patent into a solid head of the later Parker patent?

A. No.

Q. Do you think there is enough clearance shown between the outside of the sleeve in the early Parker patent which you are looking at, and the interior of the nut, to provide for any ordinary expansion encountered when this fitting is tightened wrench tight?

A. If the drawing is intended to be to scale, I would think so, with the materials that are commonly used in aircraft, that is, with a soft aluminum tube.

(Testimony of Harold W. Adams.)

Mr. Freeman: Did this last answer apply to Parker 1977241?

Mr. Huebner: That is what we are talking about.

The Witness: Yes.

Mr. Freeman: I want to be sure, because there are several Parker patents, and the one he is looking at may not [768] be very definite a year from now.

Mr. Huebner: Well, let's clear the record on it.

Q. Were you talking about the patent Mr. Freeman identified by number?

A. Yes. I was referring to Parker patent 1,977,-241.

Q. I would like to direct your attention to Exhibit——

The Court: Before you get off of this, are you through with this patent?

Mr. Huebner: For the moment, yes, your Honor.

The Court: I want to ask the witness a question, if I may.

Mr. Huebner: Yes.

The Court: Did you refer to this sleeve in patent 1977241 as a toe contact sleeve?

The Witness: Yes.

The Court: In other words, will you say that the toe comes in contact first with the flare?

The Witness: Yes, I would.

The Court: Looking at Exhibit 4——

The Witness: Fig. 4?

The Court: Fig. 4. You said when it was tightened up wrench tight, that there was no open space

(Testimony of Harold W. Adams.)

between the bottom of the flare and the top of the tube, but on Fig. 4 there seems to be a little white line. Does that indicate open space? [769]

The Witness: Referring to line 47 in the text of the patent?

The Court: Yes.

The Witness: It says:

“Fig. 4 is a detailed section similar to Fig. 3, but showing the parts brought into initial contact and before being fully clamped down.”

I referred to Fig. 1 and Fig. 2 as showing the fitting in the tightened condition where there is no gap in the base of the flare. In other words, the gap which appears in Fig. 4 is only there on initial contact. There is initial toe contact. Then the toe of the flare, the toe of the sleeve expands, or the tube deforms, or something happens so that the entire surface of the sleeve and the entire surface of the back of the flare appear to be brought into contact on tightening, as shown in Figs. 1 and 2.

The Court: Well, now, let me ask you another question. Assuming that you wanted more rigidity and you filled up the cut-out portion of the flare——

The Witness: The sleeve?

The Court: I mean of the sleeve.

The Witness: Yes.

The Court: Would you see any advantage at all, instead of having that a perpendicular sleeve, to have it angled in towards the flare? [770]

The Witness: I think the clearance at the tip of

(Testimony of Harold W. Adams.)

the flare—it is important to have some clearance at that point. I don't see any great advantage to have an angle on the outside of it.

The Court: Well, let's put it this way. Assuming that you would have a solid sleeve——

The Witness: Yes.

The Court: ——would you see any advantage of having a larger space between the toe of the sleeve and the side of the nut at the toe than you would at the top part of the sleeve?

The Witness: This fitting doesn't show a construction that I believe would be very satisfactory—I have to answer it this way—because at the point 13 in Fig. 4, I would expect to find a radius, and normally in parts that we design where we have an internal corner, we put a radius to avoid a stress compensation at this point, and I would expect that any angle outside of a line drawn from the tip of the sleeve to the base of this radius to be simply useless material. So that the advantage of an angle on the outside would depend on the relation between the radius in the nut and the clearance at the tip.

Let's take, for example, some numbers which don't bear any relation to actual fittings, but suppose I want a clearance at the tip of the sleeve of 10/1000ths of an inch. Then [771] suppose I wanted a radius in the nut of 10/1000ths of an inch. Then if I had a parallel sleeve, I would have as much bearing as I could get by putting an angle on the head of the sleeve, because if I put an angle on the

(Testimony of Harold W. Adams.)

head of the sleeve, I would simply have to chamfer it off again in order to clear the radius. [772]

If I wanted to cut the end of the sleeve, the toe of the sleeve, down 50/1000ths, and only wanted a 10/1000ths radius, then there would be an advantage in having an angle on the outside of the head.

I would be glad to draw that on the blackboard if it would clarify the matter. Perhaps my explanation hasn't been sufficiently clear.

The Court: Do you see any advantage in having the top shoulder of the sleeve sloped rather than directly across?

The Witness: No.

The Court: According to Figure 4 it is sloped; does that give you any additional pressure any place?

The Witness: That was intended in this fitting to provide for the misalignment of the sleeve with the nut, provide continuous contact even though there was misalignment. It would give a slight inward force to the sleeve, that is, it would give a hoop compression in the sleeve in the region of the clamping shoulder. I think that this is no particular advantage or disadvantage. I believe that small angles at that point would have no significant effect on the operation of the fitting.

The Court: Excuse me for breaking in.

Q. (By Mr. Huebner): Now, will you refer to two other Parker patents which are already in evidence, No. 1,893,442—

Mr. Freeman: No. 17 in your book, your Honor. [773]

(Testimony of Harold W. Adams.)

Q. (By Mr. Huebner, continuing): —and to 1,977,240. These were both file wrapper references and are referred to in the patent in suit. Explain to the court, Mr. Adams, what is shown in the first of these two patents?

A. Parker patent 1,893,442 shows a three-piece fitting, referring to Figure 2, having a body 1, a nut 10, a sleeve 11, and a tube 6. The nut acting through the shoulder 15 forces the sleeve against the back of the tube flare, and thus forces the tube flare onto the nose of the fitting.

Q. Does the sleeve in this patent 1,893,442 comprise a solid head? A. Yes.

Q. You do not find, however, in this patent, do you, any reference to a toe contact of the sleeve head with the flared tube?

A. As I remember, I don't find any reference in the written matter. It looks from the picture as though there was, but I think it is probably a draftsman's shading, or something.

Q. Where do you observe that? Which figure?

A. In Figure 2, the very heavy line which marks the division between the outer portion of the tube flare and the inner portion of the sleeve on the angular surface gets wider as it moves away from the toe of the sleeve.

Q. Now, refer to Parker patent 1,977,240, the second [774] in this immediate series, and explain what is shown there.

A. This patent, Parker, 1,977,240 shows a three-piece fitting. Referring to Figure 1 there is a body

(Testimony of Harold W. Adams.)

1, a nut 6, a sleeve 9, and a tube 4. The nut 6 forces the sleeve onto the back of the flare by means of the shoulder 13, it appears to be at a slight angle, and forces the tube onto the nose 2 of the body 1.

Q. Again we have a solid head shown on the sleeve, don't we? A. Yes.

Q. And do we find in this patent a clearance between the outside of the sleeve head and the inside of the nut? A. Yes.

Q. And in that case there would be no need for any particular angling of the outside of the sleeve head, would there?

A. This would depend, as I pointed out before, on the relative clearances.

Q. Well, if you had enough clearance to start with that would accommodate any expansion you wouldn't need an angle on the outside, would you?

A. No.

Q. Would that same observation be true with respect to the Parker patent upon which the court was asking you some questions, 1,977,241, assuming that the space shown [775] between the head of the sleeve and the interior of the nut was sufficient to start with, that any ordinary expansion under use would be accommodated, there would be no need for an angle on the outside of the sleeve head, would there?

A. No. As I pointed out before, this is a function of the radius in the corner of the nut, too.

Q. Directing your attention to Exhibit D and the photostats accompanying the stipulation SS of

(Testimony of Harold W. Adams.)

which I have handed you a separate copy for reference——

Mr. Freeman: The court has that in its book No. 19.

Q. (By Mr. Huebner, continuing): ——will you examine Figure 86 in the Exhibit SS and compare it with the figure shown in Exhibit D and state whether or not they are identical?

A. Well, one appears to be simply an enlargement of the other.

Q. Which is the enlargement?

A. Exhibit D appears to be an enlargement of the figure in Exhibit SS.

Q. And the enlargement has also been colored, has it not? A. That's right.

Q. O. K. Now, do you know what that is, what that illustrates, Figure 86, either from Exhibit D or from Exhibit SS, do you know what it illustrates? [776]

A. Yes, it shows a three-piece tubing fitting.

Q. Will you describe in detail to the court what its parts are and how they are put together?

A. Yes, it shows a body A, a nut C, a sleeve D, and a tube B. The sleeve D is held against the back of the flare on the end of the tube B by means of the nut C. The fitting A has a conical nose against which the tube is pressed. There is a clearance between the sleeve and the nut in the region of the nut head.

Q. Do you happen to know from reading the text of Exhibit SS whether materials are specified for this coupling or fitting?

(Testimony of Harold W. Adams.)

A. As I recall, the text refers to the use of lead pipe.

Q. Lead pipe would be the part indicated by B, wouldn't it? A. Yes.

Q. And it is shown as flared in this Figure 86?

A. That's right.

Q. Would it make any difference in the success of this fitting whether flared lead pipe or tubing, or aluminum tubing, or other types of metal might be employed for the tubing?

A. No, I don't believe it would make any difference. [777]

Q. As an engineer, could you take this showing here and make a fitting which would work?

A. Yes.

Q. Could you make a fitting from this disclosure which would work for aluminum tubing or even steel tubing? A. Yes.

Q. Do you observe any clearance between the outside of the sleeve head and the inside of the nut? A. Yes.

Q. If you take the proportions as they are illustrated in this particular figure 86, would that clearance, in your opinion, be sufficient to prevent a binding of the sleeve head with the nut?

A. Well, there is, of course, no tubing center line shown here so that it is impossible to tell the diameter of this fitting. However, judging by the relative wall thickness that I know to be in use and the size of threads relative to their diameter that I know to be in use, I would judge that there was ample clearance to permit expansion.

(Testimony of Harold W. Adams.)

Q. Now, getting to another subject for a moment, do you have any knowledge as to the reason for adoption of the AN standard in fittings?

A. Do you mean as to the reason why it was made standard instead of the AC811 fitting?

Q. Yes. [778] A. Yes.

Q. Will you tell the court what the reason was?

A. The reason, let us say one of the principal reasons, the one that I am familiar with, for the adoption of the AN standard over the AC811 was that the Navy Department had their vessels and their repair stations equipped with tools for making standard threads. The AC811 fitting used a thread series which was not standard, except in the smaller, the very small sizes, and I think one or two of the large sizes. The Navy never approved the use of the AC811—that is why it was called the Air Corps—never approved the use of the AC811 fitting as an AN standard, because they were not able to make replacement parts in their own stations, and they insisted on having a series of fittings which incorporated standard threads.

Q. Now, referring to your statement that you were the one who suggested, and that in turn the Douglas Company received credit for this 18½ degrees angle on the end of the sleeve head as shown in Exhibit P, do you remember that?

A. Yes.

Q. Did you apply for a patent on that improvement? A. No.

Q. Why not?

(Testimony of Harold W. Adams.)

A. Well, because I thought that any engineer that was [779] confronted with the same problem would arrive at either that or some equally satisfactory solution. I just considered it an ordinary mechanical improvement in the course of their business.

Q. Originally, was that a re-working angle?

A. Yes.

Q. And that later it was adopted as going into originally manufactured parts of certain sizes of materials? A. That's right.

Q. I would like to have you refer to Plaintiff's Exhibit 28-Q. That is one of these illustrative drawings. Now, by that illustration the plaintiff has endeavored to demonstrate that there is some benefit to be obtained from making the outside of the sleeve head with an angle. Will you state to the court what your conclusions would be, whether they coincide with that view of the plaintiff's position, as I have summarized it, or whether you disagree?

A. No. I don't see any advantage in the figure as drawn here, in having an angle on the outside, because if the outer wall of the sleeve were to be carried vertically upward parallel with the inner wall of the nut until it made contact with the nut, and the chamfer was then not used at the corner, we would have the same amount of bearing at the base of the sleeve, and we would have the same amount of clearance at the tip end of the [780] sleeve.

(Testimony of Harold W. Adams.)

I don't see what the angle on the outside does except force you to put a chamfer on the corner.

Q. Well, would the mutual bearing surfaces of the sleeve head and the nut be reduced significantly if you were to eliminate that angle on the outside of the sleeve head?

A. Well, in the first place, this drawing is not to scale and it is a little difficult for me to know. In the actual fitting on which I have made calculations, on the size 8 fitting——

Q. AN fitting?

A. Yes, size 8, AN fitting. I happen to have made calculations, and in that case, with the chamfer reduced from 10 thousandths to about 6/1000ths chamfer, which is perfectly practicable, the width of contact between the sleeve and the nut would be the same, even though there were no sleeve head angle.

So that if the sleeve head angle was eliminated, the clearance was kept the same, and the cylindrical surfaces on the outside of the sleeve and the inside of the nut were parallel, the contact area between the nut and the sleeve would still remain the same, if the chamfer were reduced from 10/1000ths chamfer to a 6/1000ths chamfer.

Q. If you made the sleeve head with a cylindrical exterior spaced from the cylindrical interior of the nut of sufficient width, you wouldn't even need the chamfer, would [781] you? A. I am sorry?

Q. Look at Exhibit 28-Q. A. Yes.

Q. If you carried that broken line straight up to the upper surface of the sleeve head and made

(Testimony of Harold W. Adams.)

that broken line the exterior surface of the sleeve head, you wouldn't even need the chamfer, would you? A. That's right.

Q. Now, on another subject for a moment——

The Court: May I ask a question?

Mr. Huebner: Yes.

The Court: I understood that one of the reasons why the sleeve head was larger at the top, or why it approached closer to the side wall of the nut was to have an area of less expansion as compared to the toe of the sleeve head when you had unlimited expansion. Do you see any advantage in having restricted expansion?

The Witness: When you say restricted expansion, you mean that the nut—I mean, that the sleeve would expand out against the nut and thereby restrict expansion?

The Court: My understanding was it was desirable to have restricted expansion at the top of the sleeve head.

The Witness: No. I think there is no advantage whatsoever in that. They actually don't expand now and they [782] don't touch the nut now, and they don't expand appreciably now, so that there is no particular restriction there now, as far as I have been able to determine from tests.

Q. (By Mr. Huebner): When you say "now," you are talking about the actual AN fittings in use?

A. Yes, that's right.

Q. And now about the Parker patent in suit?

A. Yes. I am talking about an actual AN

(Testimony of Harold W. Adams.)

fitting. In the actual AN fitting, they don't expand at that point appreciably.

The Court: Let me ask you another question. If there was no reason or no beneficial results obtained by having the outside of the sleeve head inclined, why was that required on certain types of installations?

The Witness: I can only venture an opinion. I don't know.

The Court: You are an expert.

The Witness: Well, I wouldn't say it was required. I would say it was probably in there, introduced in there in view of patent considerations.

The Court: Isn't it a fact that a lot of your specifications require the head of the sleeve to be inclined?

The Witness: Yes, sir. The AN fitting has an inclined head on the outside.

The Court: And that is required? [783]

The Witness: Yes, sir, in the specifications.

The Court: Now, if that is required, why is it required, if there is no beneficial use derived?

The Witness: Well, I suspect it was the long arm of the Parker Company that got that put in the specification, but that, as I say, is only an opinion.

The Court: Of course, opposing counsel don't agree.

The Witness: I am sure of that.

Mr. Freeman: Not even with the volunteered statement of the witness.

(Testimony of Harold W. Adams.)

Mr. Huebner: You don't need to get mad about it.

Mr. Freeman: No, no, I just called it a voluntary statement of the witness. If I was mad, I would have objected to it.

The Court: You may proceed.

Q. (By Mr. Huebner): Now, going to another subject for a moment, concerning assembly and re-use of fittings, are you familiar with the DC-3?

A. Yes, sir. You mean the Douglas DC-3 airplane?

Q. Yes. That is what I wanted to ask you, what it was or is. A. It still is.

Q. Have you any knowledge—well, let's go back for a minute. What kind of fittings did the early DC-3s have in them? [784]

A. The Parker standard fitting.

Q. What was that?

A. That is a two-piece fitting in which the male nose over which the flare is slipped is at the bottom of a threaded depression, and the nut has threads on the outside and a flare on the inside, and it is screwed down into this recess to hold the flare against the nose of the seat. [785]

Q. Did that fitting have an AC number?

A. I think it was given a number AC 810.

Q. And in that AC 810, two-piece fitting, the nut rotated on the flare of the sleeve, didn't it?

A. On the flare of the tube, on the back of the flare of the tube. There was no sleeve.

Q. That is what I mean.

(Testimony of Harold W. Adams.)

A. That's right.

Q. Did those have to be taken apart and put together again over and over during repair and overhaul?

A. Oh, yes.

Q. Do you know of any DC-3's with those fittings in them that have been overhauled, and if so, how many hours those ships have flown?

A. I examined not very long ago five airplanes which American Air Lines had retired from service. These airplanes still contained AC 810 fittings, and I don't know the exact log hours on the airplanes, but some of them had in the neighborhood of twenty-five to thirty thousand hours, as I remember.

Q. When were those built, around 1935?

A. They were pretty early airplanes. Yes, about '35 or '36, around in there.

Q. Did those planes have a good safety record?

A. Oh, yes. I don't think anybody will dispute the [786] safety record of the Douglas DC-3.

Q. Those planes had had periodic overhauls through the years?

A. Yes, sir.

Q. And in those overhauls these AC 810 fittings were disassembled and reassembled again?

A. Yes, sir.

Q. Do you have any personal knowledge of the current policy of the aircraft industry with respect to whether the AN standard should be continued or whether another type of fitting should be employed?

Mr. Freeman: I am going to object to that as absolutely immaterial, as to what somebody may

(Testimony of Harold W. Adams.)

do in the future. I think we are trying this law suit on fittings here involved, and not what may happen next week or next year.

I let a little of it go in with Mr. Bumb, when Mr. Bumb was testifying, but I think that just takes time.

The Court: Sustained.

Mr. Huebner: May I make an offer of proof, your Honor, in that connection.

The Court: Yes.

Mr. Huebner: That I expect to show by this witness, in corroboration of what Mr. Bumb testified to, that it is the predominating policy of the aircraft industry to do away with the AN standard fittings, and to go to a flareless tube [787] type of fitting.

I make that as an offer of proof.

The Court: As I see that, this evidence could only be material under one theory. The plaintiff has raised the issue that these fittings were universally accepted, and because they were universally accepted that demonstrated the fact that they were of value, that there was a demand for them. Now, this witness and another witness has testified somewhat to the contrary. It is possible that that will be material to throw light on this question of universal acceptance.

Mr. Huebner: That is right, that is the only purpose of it, your Honor.

The Court: If that is your purpose, I will change my ruling and allow you to produce it only for the

(Testimony of Harold W. Adams.)

use, to oppose the contention as made by the plaintiff.

Mr. Freeman: Of course, when we talk about what somebody is going to do next week or next year, we are then delving into something that is speculative. We are dealing here with facts as they exist as of this moment.

Mr. Huebner: Well, if they have had committee meetings and have set about to change now, that is present information.

The Court: If the witness knows, he can answer.

The Witness: Yes, sir. I, as a former chairman of SAE Committee A-6, Committee for the Standardization of [788] Aircraft Hydraulic Equipment, receive copies of the minutes of their meetings, and I have noted in the past four minutes, that is, over the past two years, comments on the part of the industry that there was a preference for the use of flareless or Ermeto fittings.

The Court: Now may I ask you a question?

The Witness: Yes.

The Court: Isn't it true that all airplane companies are continually experimenting and designing for the purpose of improving the things that they use in their airplanes?

The Witness: Yes, sir.

The Court: And would you say the fact that there is a tendency to get away from an established fitting is an indication that they are working on theories, either theories or actual practice, to try to demonstrate that a new fitting is more preferable?

(Testimony of Harold W. Adams.)

The Witness: We make experiments on many types of new fittings and parts in trying to improve airplanes. When we find one that appears enough better than the previous article, than the article currently in use, when it is enough better to justify the disturbance to our manufacturing that is caused by the introduction of a new part, we then try to get this adopted as a standard and try to change over to its use, if it is sufficiently better to justify a manufacturing disturbance. [789]

The Court: You wouldn't say that the procedure followed in regard to the fitting is any different than the procedure followed in other parts of the airplane?

The Witness: No, that's right.

The Court: There is always an attempt to better the product that is in use?

The Witness: That is correct. I also have observed in these minutes, comments to the effect that this changeover is desired because of troubles with the existing AN fitting. One of those comments was made by the representative of the Grumman Aircraft Company, in which he wished the standardization of the Ermeto fittings——

Mr. Freeman: I object to that as clearly secondary evidence. If he wants to produce what the documents show, that is another thing.

The Court: I think the objection is good. It will be sustained.

Inasmuch as we have come to the place of the objection and the sustaining of it, and we are going

(Testimony of Harold W. Adams.)

to have to start upon a new track. I think we should take an extended recess. I am going to continue this case until July 5th at 10:00 o'clock in the morning.

I have another case scheduled on July 5th. I wish you would come in here on July 5th and give me some indication of how much more time you are going to have to require, if you [790] cannot give it to me now.

Mr. Huebner: I can give you an indication, your Honor. I think we will require not over one more hour of this witness, and some brief questions of Mr. Wagner and Mr. Wolfram. I think. As far as we are concerned they will not be on the stand more than ten minutes between them. That will be our case. What the cross-examination and what the rebuttal is, I don't know.

Mr. Freeman: The rebuttal is going to depend a little on how much Mr. Adams here talks for the next hour, I mean as to what he says. But I think, your Honor, that we certainly ought to be able to finish, if they will not go longer than July 5th noon, we ought to be finished by the middle of the following afternoon. That is saying a great deal.

The Court: That will be Wednesday, then?

Mr. Freeman: Wednesday is July 5th. We had better make it Thursday.

The Court: I would hate to continue this case over to September, and if we don't get it finished promptly that week, it may have to go over to September.

Mr. Freeman: I want to express the apprecia-

(Testimony of Harold W. Adams.)

tion of the Parker Appliance Company in setting it over to July 5th to try to complete it, and we are going to try to do it.

The Court: I took into consideration, Mr. Freeman, your [791] statement about an extended vacation around here, and that is in the record now, so you may have to explain to your client the extended vacation.

Mr. Freeman: I will say that is on court order.

The Court: We will recess now to 10:00 o'clock July 5th.

(Whereupon at 4:00 o'clock p.m. Friday, June 23, 1950, an adjournment was taken to Wednesday, July 5, 1950, at 10:00 o'clock [792] a.m.)

July 5, 1950, 10:00 A.M.

The Clerk: Parker Appliance Company vs. Masters and Collins, further trial.

Mr. Huebner: Mr. Adams.

HAROLD W. ADAMS

the witness on the stand at the time of adjournment, being heretofore duly sworn, resumed the stand and testified further as follows:

Direct Examination

(Continued)

By Mr. Huebner:

Q. Mr. Adams, on page 766 of the record, I asked a question, which is recorded as follows:

(Testimony of Harold W. Adams.)

“Q. And the internal countersink or end surface of the body, is that also slightly spherical?”

I was talking about Parker Patent 1,977,241. My reference to the body was erroneous. My question should read, and I now ask it of you:

And the internal countersink or end surface of the sleeve, is that also slightly spherical?

A. Yes.

Q. On page 766 and 767 of the record, there appears to be a further error in a question. The question read originally:

“Q. As an engineer familiar with hydraulic fittings, [795] what difference, if any, does it make whether you use a spherical head on the body and a corresponding or approximately corresponding physical end on the end, or whether you use a straight coniform flare?”

That question had errors in it and I want to reask it.

As an engineer familiar with hydraulic fittings, what difference, if any, does it make whether you use a spherical head on the body and a corresponding or approximately corresponding spherical end on the sleeve, or whether you use a straight coniform flare?

A. I don't think it would make any difference in the performance of the fitting.

Q. Now, on page 771 of the record, the court asked you this question, beginning at line 5:

“Well, let's put it this way. Assuming that you would have a solid sleeve——

(Testimony of Harold W. Adams.)

“The Witness: Yes.

“The Court: —would you see any advantage of having a larger space between the toe of the sleeve and the side of the nut at the toe than you would at the top part of the sleeve?”

Now, your answer was fairly lengthy and I don't want to take up the time of the court to re-read it, but I would like you to re-answer that question at this time, if you will.

Mr. Freeman: What are you doing now? [796]

Mr. Huebner: I am making some corrections that were either inadvertent statements of myself or the witness or incorrect reporting.

Mr. Freeman: Then I suggest you ask him to make any further statement or make the correction he wants to make in that answer.

The Witness: I could clarify the answer for the benefit of those who don't wish to follow the detailed dimensions that I quoted in the record by saying that in the case of the proportions that are used in the common tube fittings of this type, such as the AN fitting, that there is no advantage to that sleeve head angle.

Q. (By Mr. Huebner): Now, I direct your attention to a new drawing which has been hung on the blackboard, and photostats of which I have handed to court and counsel as a matter of convenience. The photostats are reduced one-half, I believe.

(Testimony of Harold W. Adams.)

The Clerk: Shall we mark this, Mr. Huebner?

Mr. Huebner: I am going to ask him a question and then mark it.

Q. What is that original drawing that is hanging on the blackboard?

A. That is a section through a sleeve head and tube flare of a -4 size AN fitting showing the aluminum bronze sleeve just out of contact with an AND 10061 flare. [797]

Mr. Huebner: I offer that drawing in evidence referred to by the witness in the last answer.

The Court: It may be received.

The Clerk: VV.

(The drawing referred to was received in evidence and marked as Defendants' Exhibit VV.)

Mr. Freeman: You are offering the chart and not the small photostat which you gave us?

Mr. Huebner: That is correct. The photostats are merely for convenient reference. [798]

Q. (By Mr. Huebner): With respect to the double angle illustrated there, will you explain what the drawing shows?

A. The drawing shows an aluminum bronze sleeve, having a double angle on the inside. The one nearest the right-hand end of the chart is at a 33-degree angle. The angle adjacent to it is at an $18\frac{1}{2}$ -degree angle. The 33-degree angle has a length of 25/1000ths of an inch. The distance from the inner end of that 33-degree angular surface to the beginning of a radius on a sleeve which was not cut away

(Testimony of Harold W. Adams.)

to the $18\frac{1}{2}$ -degree, that is, to the beginning of a radius on a steel sleeve, that distance is 23/1000ths of an inch. The overall length of contact on a steel sleeve not cut away to $18\frac{1}{2}$ -degrees is 48/1000ths of an inch. The toe base or the outer end base and middle of the flare are also noted on the drawing. It will be noted that the 25/1000ths long, 33-degree surface, has its center of contact nearer the base of the flare than the end of the flare.

Q. And is that 25/1000ths area of contact surface in the sleeve parallel or at the same angle to the external surface of the flare of the tube?

A. Yes, it is.

Q. Were you familiar with hydraulic fittings used in airplanes prior to 1941 when the sleeve head angle was added? A. Yes.

Q. Were you familiar with them just as [799] originally installed or after they had been in service?

A. Well, both; we installed them at the Douglas Company, and we overhauled airplanes.

Q. You had some field trips where you made observations concerning that? A. Yes.

Q. Was there any problem observed concerning the sleeve sticking in the nut?

A. Not that I became acquainted with.

Q. I thought perhaps there might have been some occasions when you observed the sticking of the sleeve in the nut. If not, we will pass on to something else.

A. Well, if there were, they were so few that

(Testimony of Harold W. Adams.)

they made no impression on me at the time. I don't remember it as a problem.

Q. Have you had any experience in connection with cracked sleeves of the three-piece type fittings?

A. Yes.

Q. Do you have any knowledge of the Douglas Airplane Company policy with respect to cracked sleeves?

A. Yes.

Q. Will you state to the court what that is?

A. Well, I saw a letter which the Douglas Aircraft Company wrote to United Airplane——

Mr. Freeman: I object to that clearly as hearsay testimony. [800] If he wants to produce the letter, that is another story. But he is now testifying as to what is in a written document. It is secondary evidence at best.

The Court: Sustained.

Q. (By Mr. Huebner): Don't refer to the letter or base it on hearsay. Do you have any personal knowledge of what is the policy of the Douglas Aircraft Company with respect to cracked sleeves which are found in Douglas airplanes in use?

A. Yes, I do.

Q. What is that policy, if you know?

A. Yes. It is our policy to permit operators to continue to operate airplanes having cracked sleeves, provided that the fitting is not leaking after tightening.

Q. If a sleeve is cracked is there present, any longer, any hoop tension?

A. Not in the sleeve.

The Court: May I ask a question? How can you

(Testimony of Harold W. Adams.)

determine that the sleeve is cracked after it is once in the fitting?

The Witness: The crack extends out from the head out to the tail of the sleeve, which protrudes out from the nut.

The Court: And you can see the crack?

The Witness: Yes, you can see the crack. It separates a definite amount. Usually, your Honor, at the time the sleeve cracks a slight leak or drip develops, and it is [801] necessary to tighten the fitting slightly, which then in most cases stops the leak.

The Court: You never put in a cracked sleeve?

The Witness: No, sir, we do not deliver airplanes with cracked sleeves.

Q. (By Mr. Huebner): Will you turn to the Parker patent in suit, please?

A. I don't have a copy of that here, Mr. Huebner.

Q. You have read the three claims of this patent? A. Yes.

Q. And heard the testimony of Mr. Wolfram concerning those claims?

A. I heard some of it, at least.

Q. Well, all right. Whether you did or not I will go on with these questions: Take claim 1 in particular to start with, what is there described, if anything, in that claim which is not found in the prior Parker patent No. 1,977,241, which is in the book of prior art patents? [802]

A. Yes, I have that. In Patent 2,212,183, on

(Testimony of Harold W. Adams.)

page 2, in the right-hand column, line 9 says:

“and having a solid head.”

As I interpret this, they mean not having the cut-out shown in the head of the sleeve in the prior patent 1,977,241.

In line 13, the patent 2,212,183 reads:

“and provided with a coniform flare.”

Patent 1,977,241 had a spherical flare.

Q. Those are the only two differences that you observe?

A. I haven't finished reading it yet.

Q. All right.

A. Those are the only differences in claim 1.

Q. Do you find in any of the other prior patents a solid head, as you interpret Mr. Parker to mean when he defines a solid head in claim 1 of patent 2,212,183?

A. Yes.

Q. Is a solid head, for example, observed in 1,977,240?

A. I don't have that here. Yes.

Q. Is a solid head also present in Parker patent 1,893,442?

A. Yes.

Q. Do you find both of these two prior patents illustrating the head as being provided with a coniform flare?

A. Yes, both patents 1,893,442 and 1,977,240 have [803] sleeves and bodies having coniform flares.

Q. Do you see any problem involved in transposing the solid head of these prior patents and the coniform flare of the prior patents into the Parker patent 1,977,241?

A. No.

Q. Now, let's refer to claim 2 of patent No. 2,-

(Testimony of Harold W. Adams.)

212,183. How does this claim differ from the subject matter of claim 1?

A. The principal difference appears to lie in the statement starting on line 37 of column 2 on page 2, where patent 2,212,183 says:

“the outer surface of the head and said inner wall of the coupling are so dimensioned that the head will contact with the nut in the region of the clamping shoulder, while the remaining portion of the head is free from contact with the coupling member,”

That appears to be the principal difference.

Q. Other than that phrase which you have read, do you find the subject matter of that claim to be disclosed in one of the prior patents in evidence?

A. Yes.

Q. Do you find it, for example, in 1,977,240 or 1,893,442?

A. It is difficult to tell from -442 whether there is [804] room for radial expansion. In -240, there is definitely room for radial expansion, yes. Everything appears to be in 1,977,240 except for this contacting in the region of the clamping shoulder.

Q. What comparison will you make between the early Parker patent 1,977,241 and the subject matter of claim 2 of the patent in suit?

A. Patent 1,977,241 appears to show a tube fitting essentially the same as the one shown in claim 2 of the patent in suit, except that the clearance in the region of the clamping shoulder is sufficiently

(Testimony of Harold W. Adams.)

great so that it probably would not contact in that region.

Q. In 1,977,241, does Fig. 1 show the parts in wrench tight condition?

A. Fig. 1 shows them in the—yes. [805]

Q. Now, in that Figure 1 of that patent, is there illustrated a clearance all the way around the sleeve, that is to say, between the sleeve and the inside of the nut?

A. Yes.

Q. Refer next, if you will, to claim 3 of the patent in suit.

A. Yes.

Q. To short-cut it, I will suggest that that combines approximately features of claims 1 and 2, does it not?

A. Yes, that's right.

Q. What is there about claim 3, then, that is not found specifically in one of these prior patents?

A. Well, the coniform flare or the solid head referred to in line 55 is found in the prior patents, the coniform flare is found in the prior patents; initial contact at the free end of the head is found in prior patents; the outer surface, being an inner wall, "being so shaped relative to each other that when the sleeve head expands the portion of said head contacting with the flared end of the tube is at all times out of contact with the coupling member," that isn't actually a combination of claims 1 and 2.

Q. Claim 3 does not require that the sleeve head contact with the nut in the shoulder region of the sleeve head, does it?

A. That's right. [806]

Q. And in that respect do you find the feature as it is defined in claim 3 to be present in Parker patent 1,977,241?

A. Yes. Also in -240.

(Testimony of Harold W. Adams.)

Q. When you say "240," you are using the last three numerals of the patent, is that right?

A. Yes, 1,977,240.

Q. When you said "240" you were referring to that patent by the last three numbers?

A. Yes.

Q. Among the prior art patents which have been offered in evidence, that is, the prior art patents or the publication, which is in evidence, will you select the ones that you think are probably closer for the purpose of special consideration?

A. Well, I believe that the publication which was offered in evidence. I don't remember the number.

Q. You are talking about the book called Pipes and Tubes, the 1902 publication?

A. Yes, that's right.

Q. Exhibit SS?

A. Exhibit SS. And I believe of the early patents Guyer No. 196,085, McConnell 290,446, Ben-zion 1,680,080, and Parker 1,977,241 show similar fittings.

Q. Are you familiar with the Douglas Aircraft practice [807] with respect to ordering and purchasing fittings or fitting parts?

A. Well, we buy parts separately.

Q. Does Douglas Aircraft ever order from any of the suppliers fittings as assemblies?

A. Not to the best of my knowledge.

(Testimony of Harold W. Adams.)

Q. When these parts get to the plant, what is done with them?

A. They are stocked in stock bins.

Q. And when the parts are used, is there any practice with respect to selecting parts made by any particular manufacturer?

A. No; we just take sleeves out of one bin, nuts out of another, and so on.

Q. Have you made any tests in connection with preparation of your testimony here using flared head tubes with fittings, three-piece fittings?

A. Yes, sir.

Q. Have you any physical examples with you illustrating those tests?

A. Well, they are here, I believe.

Q. Will you step down from the stand and select them, please?

(Witness leaves stand.)

A. Shall I take them with me to the [808] stand?

Q. Yes, take them with you to the stand. Now, before proceeding with a discussion of the physical specimens you have selected, I want to call your attention to Plaintiff's Exhibit 28-D, which is an illustrated drawing entitled "Typical Fitting for Lead Pipe."

A. Yes.

Q. Do you understand what the plaintiff is attempting to illustrate in that Exhibit 28-D?

A. Yes. [809]

Q. In actual practice, is it necessary that the

(Testimony of Harold W. Adams.)

lead be pushed out into engagement with the internal threads on the nut, as shown there?

A. Not in order to produce a satisfactory sealing fitting, no.

Q. Have you made a physical specimen which illustrates that that is not so? A. Yes.

Q. Identify it, if you will, please, and I will offer it in evidence.

A. I have three samples which illustrate that, I think.

Q. Let's take them one at a time. Give them some descriptive identification.

A. All right. The sample of half-inch tubing, with a plug fitting on one end and a threaded fitting on the other end, identified as Adams sample No. 4, was tightened to 30 pounds inches torque——

Q. Just a minute before you go on with that and let me offer that in evidence so that we can specifically refer to it.

Mr. Huebner: I offer that in evidence.

The Court: It may be received.

The Clerk: WW. [810]

(The article referred to was received in evidence and marked Defendants' Exhibit WW.)

Q. (By Mr. Huebner): Now, continue with your description and explanation of Exhibit WW.

A. Exhibit WW consists of a tube which was flared at both ends.

Q. Hold it up so the court can see it, if you will.

(Testimony of Harold W. Adams.)

A. Yes. —which was flared at both ends. It was then tightened until by appearance of the surfaces, it appears that it would probably seal. It was then tested— This required a torque of 30 pounds inches, wrench torque. It was then put on a hydraulic test stand and tightened until it burst. It burst at 1800 pounds per square inch pressure.

Q. And does that burst show in the tube?

A. Yes, down near the threaded fitting end.

Q. What kind of fittings or fitting parts are on the ends of the tube?

A. They are No. 8 fittings, sleeves, nuts, and bodies, the AN-8 size. The nuts are Parker manufacture, I believe—yes. The body seems to be Masters manufacture, the threaded body. I can't make out the other body. The identification on the sleeve isn't visible, so I don't know the manufacturer of the sleeve.

Q. Did you disassemble the exhibit after the bursting test to examine the condition of the flare and the interior [811] threads of the nut?

A. No. This one has not been disassembled.

Q. It is still in its original tight condition?

A. Yes.

Q. Now, will you take your next sample and identify it by sample number and I will offer it in evidence.

The Court: Before he goes on, can I ask a question?

The Witness: Yes.

(Testimony of Harold W. Adams.)

The Court: I notice that tube burst under the pressure.

The Witness: Yes.

The Court: Does that indicate in any way there was a defect in the sleeve?

The Witness: No. That is customary. The fittings are usually stronger than the tube. In fact, it is our practice usually to use fittings that are stronger than the tube so that the tube does not burst.

The Court: It bursts?

The Witness: Yes. The next sample is identified as Adams sample No. 3.

Mr. Huebner: I will offer in evidence sample No. 3.

The Court: It may be received.

The Clerk: Exhibit XX.

(The article referred to was received and marked Defendants' Exhibit XX.) [812]

Q. (By Mr. Huebner): Now, take this Exhibit XX and tell what the parts are, what was done with them, and what happened.

A. Exhibit XX is a duplicate of the previous exhibit. It was tightened, and this time I tightened it to 30 pounds inches torque. Then I very carefully examined it for leakage while the test pressure was being applied. At 1,000 pounds per square inch, which would be three or four times the working pressure at which a tube of this burst strength would be normally used, at 1,000 pounds per square inch, there was a slight leak at one end. So the fit-

(Testimony of Harold W. Adams.)

ting was then re-tightened to 40 pounds inches torque. The pressure was then increased to 1,500 pounds per square inch, or just below the burst pressure, and it was held for 10 minutes. During this time no leakage appeared. I carefully observed the assembly during the test.

Q. Have you disassembled those parts since the test?

A. No. This is in its originally tightened position.

Q. Now, take up your next sample.

A. The next sample is Adams sample No. 6.

Mr. Huebner: I will offer this in evidence.

The Court: It may be received.

The Clerk: YY.

(The article referred to was received in evidence and marked Defendants' Exhibit [813] YY.)

Q. (By Mr. Huebner): Now, referring to Exhibit YY, what are the parts, what did you do with them, and what happened?

A. Exhibit YY shows a fitting identical to one end of the previous samples.

Q. By "previous samples," you mean WW?

A. Yes, WW—both XX and WW. This sample consists of a piece of lead tubing, an AN-8 fitting body, AN-8 nut of Parker manufacture, and AN-8 sleeve. I tightened this assembly to 40 pounds inches torque, which is the same torque that was re-

(Testimony of Harold W. Adams.)

quired to hold pressure without leakage on sample XX, and is 33 per cent above the pressure required to burst sample WW. This was tightened to 40 pounds inches with the same torque wrenches that were used to tighten samples WW and XX.

This fitting was then locked by means of a screw to prevent its turning and was then machined to show cross-section through the fitting. It can be observed from looking at this cross-section that the lead tube at the torque required to seal is not squeezed out. In fact, it looks just about identical to cross-sections through normally tightened aluminum tubes in aluminum alloy fittings. The torque required to seal is approximately one-fifth of the torque required to seal aluminum alloy fittings, because lead is on the order of one-fifth of the hardness of aluminum alloy tubing [814] that is used in conventional aircraft work.

The sealing torque was arrived at in the same manner it would have been arrived at with aluminum tubing and aluminum alloy fittings.

Q. Do you have one more physical example?

A. Yes.

Q. What is its identification?

A. Sample No. 2, Adams sample No. 2.

Mr. Huebner: I offer that in evidence.

The Court: It may be received.

The Clerk: ZZ.

(The article referred to was received in evidence and marked Defendants' Exhibit ZZ.)

Q. (By Mr. Huebner): Referring to Exhibit

(Testimony of Harold W. Adams.)

ZZ, explain to the court what that is and what it illustrates.

A. Exhibit ZZ is a piece of lead tubing assembled on a -8 body, using -8 sleeve and -8 nut. This was tightened to three times the torque previously determined as being required to seal. This was tightened to 120 pounds inches. It can be observed that when this fitting was tightened to three times its normal torque, the tube is almost squeezed completely in two, and the end of the tube flare has been squeezed out into the threads. This fitting shows an appearance similar to the appearance of aluminum tubes which have been tightened to three or four times their normal [815] torque.

Q. Do these examples that you have referred to illustrate that standard AN fittings are suitable for coupling to flared lead tubes? A. Yes. [816]

Q. In connection with your lead tube experiments, or tests that you have described, did you do anything in connection with aluminum tubing for comparative purposes? A. Yes.

Q. These two samples here, are they ones that you prepared? One is No. 8 and the other is No. 9.

A. I prepared this one (indicating). I think Mr. Masters made up this one (indicating).

Q. Which one did you prepare, by number?

A. I prepared the one marked Sample No. 8.

Mr. Huebner: I will offer in evidence Sample No. 8.

The Clerk: AAA.

The Court: It will be received.

(Testimony of Harold W. Adams.)

(The device referred to was marked Defendants' Exhibit AAA, and was received in evidence.)

Q. (By Mr. Huebner): What is AAA and what does it illustrate in comparison with the lead tube exhibit?

A. Well, Exhibit AAA shows a -8 size aluminum tube, with a -8 body, -8 nut, and -8 sleeve, which has been tightened to the normal torque of 200 pounds inches, which is the normal torque for aluminum tubes. Now, this is squeezed out about the same amount and resembles generally the lead tube sample which was tightened to its normal torque of about 40 pounds inches.

Do you want the other two samples? [817]

Q. If the court doesn't need them for the moment, I will hand them to counsel.

Reference was made a moment ago to Sample No. 9, which I think you said Mr. Masters made. Did you work with or give him directions to do anything in your presence on it?

A. Oh, yes. I told him to——

Q. That is enough for the moment.

Mr. Huebner: I offer in evidence Sample No. 9, and then ask you about it.

The Court: It may be received.

The Clerk: BBB.

(The object referred to was marked Defendants' Exhibit BBB, and was received in evidence.)

Q. (By Mr. Huebner: Now, avoid hearsay that

(Testimony of Harold W. Adams.)

you told him to do this or told him to do that, but explain what he did under your direction so far as you know, what it is and what it illustrates, and I am talking about BBB.

A. He tightened this fitting, Mr. Masters tightened this fitting to 525 pounds inches torque. This is between two and three times the normal torque required——

Q. What is the metal of the tube?

A. This is an aluminum tube with -8 body, nut, and sleeve. After tightening to 525 pounds inches this fitting was sectioned. It can be seen from the section that the tube is almost completely squeezed away and that the end of the tube [818] flare has expanded into the threads of the nut in similar fashion to the end of the tube flare on the lead tube which was over-tightened to 120 inch pounds.

Q. In connection with these fitting assemblies when coupled up with flared tubes, and regardless of whether the tube is of lead or aluminum or steel, the length of the flare relative to the proportions or measurements of the sleeve and nut has something to do, hasn't it, with whether the material of the tube is pushed out into the threads?

A. Well, yes, a longer tube would be pushed out into the threads, would fill more of the threads when it was over-tightened.

The Court: Just a minute. You say a longer tube. Do you mean a longer flare?

The Witness: Yes, a longer flare.

Q. (By Mr. Huebner): On these lead tube ex-

(Testimony of Harold W. Adams.)

hibits and the aluminum tube exhibits which you have just testified concerning, was the length of the flare on the respective tubes made in accordance with standard specifications?

A. It was about the minimum length permitted by the specification in both cases.

Q. The patent in suit, 2,212,183, we will go back to that for a moment, in claim 1 talks about initial contact. According to the description of that claim, may the initial contact of the nose and of the sleeve be at any point along [819] the outer surface of the flare, or is it required to be at or near the extreme end of the flare of the tube?

A. In patent 2,212,183, page 2, column 2, beginning with line 14,

“the initial contact of the head with the flared end of the tube is at the free end of the head and adjacent the outer end of the flared end of the tube,”

so it must be very close—I would interpret “adjacent”—very close to the outer end of the flared end of the tube. It is out at the largest diameter of the flared end of the tube.

Q. When you say very close, having reference to the word “adjacent,” how close in measurement must that be?

A. Well, “adjacent” means to me alongside. I don’t know what it would be in inches. I should think it ought to be within the outer 10 per cent or so.

Q. Well, then, if the nose of the sleeve were to

(Testimony of Harold W. Adams.)

have initial contact more than 10 per cent of the distance back from the extreme end of the flare, you would say that was not "adjacent" within the meaning of the patent? A. Yes.

Q. I would like you to take physical Exhibit No. 32. Are you able to tell from a visual inspection of the parts comprising this exhibit whether the sleeve does make initial [820] contact of the sleeve of the toe with the flare on the tube adjacent the outer end of the flare.

A. Yes, I can tell. It obviously doesn't, because about half of the flare is protruding from the sleeve when the sleeve is brought in contact with the flare.

Q. Then you would say that that particular physical specimen does not comply with the teaching of claim 1 of the patent in suit?

A. That's right.

Q. Were you present when Mr. Masters conducted some of the demonstrations on various fittings where he bored holes in from the side through the nut to measure the expansion or lack of expansion of the sleeve?

A. Yes, I was.

Q. In the AN fitting made according to standard specifications and employed with a flared tube made to standard specifications, when the nut is tightened to standard torque requirement to effect sealing, is there ever any contact, as far as the demonstrations that you have observed, between the outside of the sleeve head and the inside of the nut in the region of the shoulder?

(Testimony of Harold W. Adams.)

A. No, I have never observed any contact in that region. And from my measurements and Mr. Masters', I don't see how it is possible for there to be any.

Q. Would you say that a shoulder contact between the [821] outside surface of the sleeve head and the inside surface of the nut would have any advantage?

A. Well, that would depend again, on relative clearances, and so on. Actually it might help to prevent the sleeve cracking that we are having [822] now.

Q. If, however, the proportions and measurements are employed according to standard AN—withdraw that question.

You are familiar with the specifications for the AN fittings in the various sizes, I assume.

A. Yes, sir.

Q. And the metals employed? A. Yes.

Q. When any of these are made according to AN specifications, employing the metals called for, in your opinion is it ever possible that there will be a shoulder contact between the outside of the sleeve head and the inside of the nut in the region of the shoulder?

A. Not under normal tightening.

The Court: May I ask a question? You said you were having some trouble with sleeves cracking, is that right?

The Witness: Yes, sir.

The Court: Do you know what causes a sleeve to crack?

(Testimony of Harold W. Adams.)

The Witness: Yes, sir.

The Court: What?

The Witness: Too much clearance around the toe of the sleeve.

The Court: Around the toe of the sleeve?

The Witness: Yes, because that is where the principal radial load is.

The Court: What do you mean by too much clearance? [823]

The Witness: Well, so much clearance that the sleeve head expands so far that it can't take it any more and finally cracks out here in this region. I will have to describe it. I mean by the toe of the sleeve the right hand of the sleeve in Exhibit VV. If there is too much clearance between the toe of the sleeve and the inside of the nut, then when the fitting is tightened, this can expand too far and it can crack. That is the dimensional reason.

Another reason is that the material may be such that it has a poor elongation, that is, that it won't stretch sufficiently without failing. Brittle like glass. It takes a brittle——

The Court: Is this cracking of the sleeve something new?

The Witness: I think it has been worse in recent years, yes.

The Court: What I am getting at is, did you have the cracking of the sleeve before you used the latest form of the sleeve, that is, before they developed all these angles, toe contact, and so forth and so on?

(Testimony of Harold W. Adams.)

The Witness: I think we may have had a few cases, from what I remember. It is hard to remember back. That is 10 years ago. I believe we may have had a few cases then, but we are having more cases now. That is the best of my memory.

The Court: The problem has been accentuated under the [823a] new forms of sleeve, is that right?

The Witness: That's right. That is definitely true.

The Court: I notice you are looking at the clock. It is 11:00 o'clock. Maybe we'd better take our morning recess. We will now recess until 15 minutes after 11:00.

(Recess.)

Q. (By Mr. Huebner): Mr. Adams, are you familiar with any action by the SAE committee regarding making the angle on the outside of the sleeve head an optional thing? A. Yes.

Q. What is the action?

A. The SAE committee on tube, pipe, hose, and lubrication fittings, on January 11, 1950, approved SAE standard 37 degree tube fittings, which is practically identical to the AN fitting, except that the 1 degree angle on the outside of the sleeve head is optional.

Q. With respect to the physical tests, and visual observations, we have in evidence here a great many cut-away models of assembled parts of tubes. We have others that have been drilled from the outside through the nut. What would you say as to

(Testimony of Harold W. Adams.)

the respective reliability of visual observation of cut-away models as against actual measurements of capped nut models?

A. Well, visual models are all right to get a general idea of what is going on, but if you want to know accurately [823b] what is happening with regard to small clearances, I think the measurement is the only thing.

Mr. Huebner: You may cross-examine.

Cross-Examination

By Mr. Freeman:

Q. When you made your lead pipe flare, did you measure the diameter at the toe of the flare?

A. No.

Q. There is a minimum measurement requirement according to AN specifications?

A. Yes, sir.

Q. And when you told the court you followed the minimum sizes of the flare, did you do that by observation only?

A. The flaring machine has a stop on it. We set the stop down to about the low limit.

Q. I am wondering if you could measure for me the overall diameter of the flare of the exhibit that I am now handing you, which is Defendants' Exhibit YY, and then tell me whether or not that comes within the minimum as provided for in the AN specifications.

A. Well, you will have to give me a copy of the AN specifications, too, then.

(Testimony of Harold W. Adams.)

(Mr. Freeman handing document to witness.)

A. It seems to be just about $5/8$. This is diameter [823c] for half-inch tubing, minus 10. That would be $6-4/6$,—I would say this is about 20 thousandths under the minimum.

Q. That measurement that you just made was after you applied the necessary torque to bring about sealing contact; correct? A. Yes.

Q. And it is true that the lead will flow out or that the size of the flare, that is, the diameter at the toe, will increase somewhat due to the torque pressure applied in bringing about sealing contact; correct? A. I am not sure of that.

Q. Haven't you observed, as a matter of fact, that when you tighten up a fitting, that there is some expansion of the flare itself at the toe end?

A. When you overtighten it, yes, certainly. This is not overtightened, however.

Q. Would you say that there is no expansion whatsoever of the flare itself under normal torque?

A. I would say I have never measured that.

Q. And you don't know? A. That's right.

Q. Now, it is a fact, is it not, that lead will flow? A. Yes.

Q. And it is a fact that it will flow more freely than, say, aluminum tubing, under the same torque or pressure? [823d]

A. Under the same torque, yes, certainly.

Q. So that are you willing to say here that there has been no flow of the lead pipe in the fitting that

(Testimony of Harold W. Adams.)

you have here produced as illustrative of what would happen with a lead pipe and a fitting of the -8 size?

A. No, I wouldn't say that there has been no flow. I think there definitely has to be some to seal, just as there is on aluminum tubing. [823e]

Q. So that when you told us a minute ago that the measurements that you have now made was 20/1000ths of an inch less than normal, it is fair to assume, when you started with the flare on the lead pipe that you have in your hand, that the amount was even greater than 20/1000ths below minimum?

A. I wouldn't say that for sure, because it might—you never know whether the thing bent in or something. I wonder if we have any around that aren't tightened, or something of that sort.

Q. I am talking about the one you introduced here as an exhibit.

A. It was probably pretty close to this.

Q. We are both agreed that even under the torque pressure necessary to bring about sealing contact it was at least 20/1000ths less than a normal flare.

A. I think that is probably safe to say, yes. The reason for that is that the stop doesn't stop on the diameter, the stop stops on the length, and this is a little thicker walled tube than would normally be used in aircraft, so when the stop is set for the length it cuts the diameter a little on a thick walled tube.

(Testimony of Harold W. Adams.)

Q. And isn't it also true that the outside diameter of the lead tube that you have there actually filled up the sleeve or the tubular portion of the sleeve itself and is in frictional engagement therewith? [824]

A. No; the sleeve slipped on freely. The lead tube had a ridge down one side, which I had to scrape away, in the region of the sleeve, and the sleeve did slip on freely.

Q. And is the sleeve in contact with the lead pipe at the present moment?

A. Well, of course it is in the region of the flare.

Q. I am talking about that portion that extends up beyond the nut.

A. Well, in the region of the head here it is not in contact. In the region of the sleeve in the parallel portion of the sleeve head it is not in contact.

Q. Now, turning to your Exhibit VV, which is on the blackboard here, what portion of that illustration do you refer to as the flare?

A. The flare of the tube?

Q. Yes. A. The yellow portion.

Q. The yellow portion includes, likewise, the tube proper, does it not?

A. Yes. The yellow portion to the right—well, I would say to the right of the center of the radius about which the bend takes place.

Q. You have a line with the words "base of

(Testimony of Harold W. Adams.)

flare" extending across the tube portion, is that correct? A. Yes. [825]

Q. Now, is there any portion of the flare to the left of that line as you look at the drawing?

A. Well, I had in my own thinking divided it up into three parts; the straight tube, the radius, and the flare.

Q. All right.

A. That line "base of flare" is drawn through the center of the radius.

Q. Isn't it, as a matter of fact, that it is drawn to exclude the curved portion—— A. Yes.

Q. ——between the tube and what you have called the flare? A. Yes, that's right.

Q. What do you call that curved portion? Is that part of the flare, part of the tube portion, or what is it?

A. Well, I call it a transition area.

Q. And you excluded that transition area when you provided the measurements of the flare and obtained the term "middle of flare"; correct?

A. Yes, sir, correct.

Q. And by doing it the way you did you had one portion of the flare 23/1000ths of an inch, and the portion in contact with the sleeve 25/1000ths of an inch; correct?

A. Well, the 23/1000ths was actually measured on the cut-away sleeve. However, it would apply to the flare, too, [826] yes.

Q. When you say "measured on the cut-away of

(Testimony of Harold W. Adams.)

the sleeve," the measurement of 23/1000ths actually extends from the "base of flare" line?

A. Yes, that comes at the same place as the cut-away on the sleeve.

Q. Then, I take it that you do not take into account at all that transition portion, that is, between the tube and the flare, in any of your calculations that you have here given us?

A. That's right.

Q. And might the calculations be different if you included that portion of the flare as part of the flare proper? A. Yes.

Q. Now, I take it that you made no measurements of the outside diameter of the flare of the tube of Exhibit ZZ prior to making your test?

A. This was made with the same stop setting as were all of the lead tube samples.

Q. So if the other one that we referred to specifically, Defendants' Exhibit YY, fell 20/1000ths below minimum, then it is fair to assume that these, likewise, fell short? A. That's right.

Q. How about Exhibit WW and XX? The same applies? [827]

A. They were all made with the same setting.

Q. How about Defendants' Exhibit AAA, which is an aluminum tube within the fitting, was that made on the same instrument?

A. Yes, that was made on the same tube flaring machine.

Q. Do you ever check the overall diameter of

(Testimony of Harold W. Adams.)

the flares after the tubes have been flared to determine their accuracy for proper use?

A. Not normally. We set the stop length to govern the length of the flare on the machine.

Q. Are those stops occasionally inspected and checked for accuracy?

A. At the Douglas Company they are, yes.

Q. Do you provide gauges of the go and no-go kind? A. Not to the best of my knowledge.

Q. Well, what kind of inspection do you give the instrumentality by which you make flares on tubes?

A. Normally we make a few samples on a machine with a certain machine fitting, and then we check it to 10061, and then we go ahead and make flare tubes on that machine with that machine setting. [828]

Q. And the 10061, that is the dimensional drawing? A. Yes.

Q. Which we have referred to here as an AN drawing? A. That's right.

Q. In the event you are 20 thousandths below minimum, as provided for on that drawing, what do you do about that?

A. I expect we would re-set it at 20 thousandths below.

Q. In other words, it is not the practice of the Douglas Company to let any more flares be used than absolutely necessary that fall below the minimum; correct? A. Yes.

(Testimony of Harold W. Adams.)

Q. Douglas Company prides itself on precision of manufacture; correct?

A. Well, a 10 thousandths tolerance is a little too close on these flares, but we come pretty close to it.

Q. Well, you don't deliberately start out and take the 10 thousandths tolerance—— A. No.

Q. ——and then knock off another 20 thousandths, do you? A. No.

Q. Now, I am going to ask you which single patent of those that you have here referred to is in your opinion the best anticipation of the Parker patent in suit. And when [829] I say "patent" I also include there the Bjorling publication.

A. I think they might differ for different claims of the patent in suit.

Q. Well, you give me then the one you think is the best single reference for claim 1.

A. I think probably Parker patent 1,977,241 is closest to claim 1 of the patent in suit.

Q. Now, move over to claim 2 and do the same.

A. Might I have the publication you refer to, a copy of it?

Mr. Freeman: It is your exhibit. Will you give him the Bjorling?

(Mr. Huebner complying.)

The Witness: I think probably Parker 1,977,240 is closer to claim 2 of the patent in suit than the others.

(Testimony of Harold W. Adams.)

Q. (By Mr. Freeman): You consider it the best reference?

A. Yes, the best single reference.

Q. Then take the best single reference or give us the best single reference for claim 3.

A. The best single reference for claim 3, I believe, would be Parker 1,977,241.

Q. In other words, as you have answered me on cross-examination, the two Parker patents, 1,977,240 and 1,977,241 are the best anticipatory references of claims 1, 2, 3 of the [830] patent in suit; correct?

A. Yes.

Q. How do you rank the Bjorling publication?

A. Well, I would say it is the best anticipation of the tube fittings as they are actually built; that patent 2,212,183 does not actually represent the fittings the way they are built. You asked me for the best anticipation of the patent.

Q. That's right.

A. I think this Bjorling reference is the best reference to the actual tube fittings.

Q. Does the Bjorling reference show an angle on the outside of the sleeve?

A. No.

Q. And do the fittings that are used by the Douglas Aircraft Company, which you have here produced as samples in connection with Exhibits WW, XX, YY, and AAA, provide an angle on the outside of the sleeve?

A. Yes, although we don't think it is important.

Q. I just am asking you now as a fact whether

(Testimony of Harold W. Adams.)

Q. Douglas Company prides itself on precision of manufacture; correct?

A. Well, a 10 thousandths tolerance is a little too close on these flares, but we come pretty close to it.

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A. No.

Q. And do the fittings that are used by the Douglas Aircraft Company, which you have here produced as samples in connection with Exhibits WW, XX, YY, and AAA, provide an angle on the outside of the sleeve?

A. Yes, although we don't think it is important.

Q. I just am asking you now as a fact whether

(Testimony of Harold W. Adams.)

or not those exhibits did in fact include the angle on the sleeve. A. Yes.

Q. And it is a fact that the Bjorling publication does not include an angle on the sleeve?

A. That is correct. [831]

Q. And it is a fact that in the Bjorling publication, the drawing there illustrates a sleeve, the outer wall of the head of which is parallel with the inside wall of the nut throughout its entire length; correct? A. Yes, correct.

Q. And in that respect, the Bjorling publication differs from the Parker patent in suit, which does include an angle arrangement there on the outside of the sleeve? A. That is correct.

Q. And in that respect, the fittings that you have here produced, or those here charged to infringe, likewise differ from the Bjorling publication in that they do provide an angle on the sleeve; correct? A. Yes.

Q. And in respect to the Parker patent in suit and the fittings here charged to infringe, both do include an angle on the outside of the sleeve; correct? A. Yes.

Q. And in the fittings here charged to infringe, the upper portion of the sleeve closely adjacent the region of the contact with the nut is in closer relationship to the nut than at the lower end of the sleeve; correct? A. Yes.

Q. And in that respect, the devices here charged to infringe follow the Parker patent and not the Bjorling fitting; [832] correct?

(Testimony of Harold W. Adams.)

A. In that respect, yes.

Q. And in the Bjorling fitting, the portion of the sleeve which engages the flare is rather closely related to the shoulder on the sleeve? There isn't any great distance between the portion that engages the flare and the portion that engages the nut? I mean distancewise?

A. Well, there is a distance, but it is not large in proportion to the rest of the fitting.

Q. And with respect to the length of the sleeve, how much would you say in the Bjorling fitting is the distance between the part that engages the flare and the portion that engages the shoulder of the nut? Just give me that porportionwise.

A. It is about a quarter of the sleeve head length, somewhere in that neighborhood.

Q. So it is fair to assume that if it is one-quarter of the length of the sleeve head, then the part that engages the flare of the tube is about three-quarters in length?

A. That is about right.

Q. Is that the proportion, about three to one?

A. Yes.

Q. Now, you agree with me, or maybe I should say, do you agree with me that if there was any corrugation or roughened surface on the male member or body member of the [833] fitting that engages the inner surface of the flare of the tube, that that would not make a satisfactory sealing connection?

A. It depends on the size of the roughness.

(Testimony of Harold W. Adams.)

They all have a roughness now from machining.

Q. Well, would you provide or would you have a good sealing connection if there was a rib on the body member, that is, the cone-shaped portion of the body member, which was about the size of a normal screw thread, on a No. 8 fitting?

A. No, that would be a little too big.

Q. In other words, it is desirable, is it not, that in fittings of this kind, you get as smooth a surface both upon the body member and upon the inside of the flare as possible in order to make a good seal; correct? A. No, I don't think so.

Q. In other words, you would say——

A. We deliberately turn rings in some fittings, you know, to make them seal.

Q. We are talking about the AN fittings here. Do you know any we turn rings in?

A. No, not on the AN fittings, of course.

Q. In those where you turn rings, those are usually seals that are used for sealing rubber hose?

A. No, sealing metal parts. [834]

Q. Are those the cable type?

A. No. They are usually used—there is, I believe, an AN, at least it is in the AN standard parts book, a fitting where copper is sealed on a surface and there are grooves turned in the surface to provide a higher lock bearing pressure and therefore make it seal better, and these are used on 90 degree flares rather than 30 degree flares, although I don't see any particular difference. [835]

Q. Well, upon the flares of the kind that we

(Testimony of Harold W. Adams.)

have here been considering and the kind of fittings that we have here been considering, it is desirable, is it not, to have as smooth a surface as possible upon the body member that engages the inside of the flare; correct?

A. Well, I have never tried one, I don't know.

Q. As far as you know, there are none of the kind here involved that provide rough surfaces, roughened surfaces?

A. No, I don't know of any of these that have roughened surfaces.

Q. And you do agree with me that the smoother the contacting surfaces the better will be the seal?

A. No, I don't agree.

Q. Well, why don't you agree? I am going to give you all the room you want.

A. Well, because a high local bearing pressure is sometimes advantageous in producing sealing, and we do this, as I say, in other places. We have never happened to do it on this kind of a fitting. But a high local bearing pressure is sometimes advantageous in producing sealing. Particularly with the harder members. The harder the tube the smaller the bearing area you should have in order to be able to seal with a lower torque on the nut. In other words, you can press a small ring into a harder tube with less pressure, less wrench torque, than you can a wide surface. So line [836] contact, you might say, is sometimes an advantage over area contact. Your Exhibit No. 28 something points that out.

Q. Thank you. What you are now saying is

(Testimony of Harold W. Adams.)

when you have a flat surface contact of the kind that we have here, as distinguished from a ring that you want to imbed between the two members or into a member, it is desirable to have the surfaces smooth?

A. You are a little ahead of me on that one. I said as far as the male surface of the body was concerned that I have never tested one with circular rings around it, and I don't know whether it would be an advantage or not, but that I would expect with a steel tube it might even be an advantage. I definitely don't think that it is proven that a smooth surface is better.

Q. Taking these various fittings that you said where you have a ring that you want to have imbedded into the male member, or where the parts co-operate where one imbeds within the other——

A. Yes.

Q. ——are those reusable?

A. Well, the ones that we use, the AN ones, are, yes. Wait a minute. I take that back. The fittings are reusable, but the tubes, or in this case the gasket is not.

Q. In that case you use a gasket member? [837]

A. Yes.

Q. And the gasket member is the sealing member?

A. That's right.

Q. The fittings are reused but the tubes are not reused?

A. The gasket, which would be comparable.

Q. It brings about the sealing?

(Testimony of Harold W. Adams.)

A. Yes. It is not.

Q. The fittings that we are talking about here, it is true that the tube, the body, the nut, and sleeve are all reusable? A. Yes.

Q. Now, speaking of gaskets, did you find any rubber gaskets that served as a sealing means in connection with any of the prior art patents that you described here a week or so ago to the court?

A. Wait a minute, now. I want to clear up something on that last one. The type that we use now with the copper gasket, the gasket isn't reusable. If we had small rings on the nose of the male part, I believe that would be reusable.

Q. I am talking about only those that you are actually using. A. All right.

Q. Those are not reusable? A. No. [838]

Q. And the fittings here involved are reusable?

A. I say they aren't reusable, because it is not our practice to reuse such inexpensive things as gaskets. I see no reason why you couldn't reuse them, as a matter of fact. We just don't.

Q. That last answer of yours is probably predicated upon the same type of reuse of rubber rings that maybe your wife and my wife uses on mason jars; you can reuse the rings we used last year, but it is not very desirable?

A. Well, we throw away the gaskets because they are pretty cheap things.

Q. Do you recall my question wherein I asked you whether or not in the patents that you described to the court, each of which you said con-

(Testimony of Harold W. Adams.)

sisted of a body, sleeve and nut, whether or not there were in fact some rubber gaskets used for bringing about the sealing means?

A. In the patents that I described?

Q. Yes.

A. There might have been one of them that had a rubber gasket. As I remember, there was one that had a rubber gasket. Not of the ones that I called close references.

Q. I am asking about those that you described last week.

A. Yes, as I remember, there was one that had a rubber gasket. [839]

Q. Only one?

A. Well, that is all I remember offhand. I will be glad to go through them and look again.

Q. Take a look at the George patent and tell me whether or not that provides a washer or packing member, whether made out of rubber or some other sealing compound.

The Court: Do you want the witness to examine all these patents?

Mr. Freeman: I am going to at least ask him to examine those wherein he did not, in my opinion, at least, tell enough about them.

The Court: Well, the reason I am asking is that I want to quit a little early today.

Mr. Freeman: I am sorry. I suggest we adjourn.

The Court: We can let him examine these patents during the noon hour, since you have indicated

(Testimony of Harold W. Adams.)

what you want, and then he can come back after lunch and testify.

Mr. Freeman: Let me tell him, then, that there are some additional ones.

The Court: All right. Give him the names of the patents that you would like him to examine.

Mr. Freeman: Just those that he here produced.

The Court: I have a criminal matter set for 2:00 o'clock. It probably will not take very long to dispose of it. [840]

Mr. Freeman: Would you like to have us come in at 2:30?

The Court: No. I am just wondering whether you want to sit around and listen to a criminal matter being disposed of.

Mr. Freeman: It might be enlightening.

The Court: I don't think it will take very long. We will now recess until 2:00 o'clock this afternoon.

(Whereupon at 11:50 o'clock a.m. a recess was taken to 2:00 o'clock p.m. of the same day.)

(Testimony of Harold W. Adams.)

July 5, 1950, 2:35 o'Clock, P.M.

The Clerk: Parker Appliance Company vs. Masters and Collins.

HAROLD W. ADAMS

the witness on the stand at the time of recess, being heretofore duly sworn, resumed the stand and testified further as follows:

Cross-Examination (Continued)

By Mr. Freeman:

Q. Can you give me the patents by number which include some sort of sealing means, such as rubber or the like?

A. The only ones I could find were Anderson, 535,236, in which there is an insert in the nose of the fitting, which I referred to in my previous testimony, and reading from the patent, line 63, it says:

“to respectively receive packing rings cc made of rubber or other equivalent material.”

The other one I could find, which you directed my attention to, is George, 326,425, which, however, only refers to gasket material in a modified version of the fitting. Reading from page 2 of the patent, line 15 says:

“Fig. 8.”

(Testimony of Harold W. Adams.)

and Fig. 8 is the only figure that I was able to find showing a gasket—— [842]

“Fig. 8 is a longitudinal section of a slightly modified form of the lining in which the flange against which the screw collar bears is set inward to accommodate a washer e.”

This is shown in Fig. 8. It is a washer designated by the small letter e. In Fig. 7 just above it, the fitting is shown without this washer, in the unmodified form.

Q. Are you through, Mr. Adams? A. Yes.

Q. Just so that we have the record complete as to your background, what school did you graduate from? That was not mentioned in your opening comments.

A. Why, a local technical school called the Western College of Aeronautics.

Q. When did you get out of that school?

A. In 1930.

Q. When you went to work for Douglas, that was in 1934? A. No, 1930.

Q. Right out of school? A. Yes, sir.

Q. What company's fittings were they then using?

A. I was not closely connected with the tube fitting part of the aircraft business until 1934 to know. I don't know in that period from 1930 to 1934. [843]

Q. What fittings were they using in 1934, what company's fittings?

A. I think they were using Parker fittings.

(Testimony of Harold W. Adams.)

Q. When you came out with the DC-3, Parker fittings were used? A. Yes, sir.

Q. And they were what we have here referred to as a two-piece fitting? A. That is right.

Q. And have they continued using the two-piece fitting in the DC-3s? A. No.

Q. When did they make the change from the two-piece fitting of 1934 to a three-piece fitting—and I assume they are now using a three-piece fitting?

A. That's right. It was made in the early part of the war as part of the war standardization.

Q. How about the DC-3s that came back for service and repair? Did you continue to use the fittings of the two-piece kind, or did you substitute a three-piece kind?

A. We substituted the three-piece kind.

Q. And likewise Douglas shortly after the war entered into quite a program of modifying the so-called old DC-3s to lengthen them out, give them a little more load capacity? A. That's [844] right.

Q. In other words, rejuvenate the old ships; correct? A. Yes.

Q. I take it that new fittings were used on the modified ships when they were made over?

A. Yes.

Q. And the new type fitting included the three pieces? A. Yes, we used AN standard fittings.

Q. And that included the angle on the sleeve of the fittings? A. Yes.

(Testimony of Harold W. Adams.)

Q. As a matter of fact, the two-piece fitting is a cheaper fitting than the three-piece fitting?

A. I don't know.

Q. Have you ever checked that end of it?

A. No, I never have.

Q. Did you have anything to do with recommending the use of the three-piece fitting over the former two-piece fitting?

A. Well, that decision was made by our hydraulics group and I remember their wanting to make all the fittings alike, and I believe I agreed with them.

Q. Well, you were part of that hydraulics group in those days? [845]

A. No. Wait a minute. I thought you were referring to the recent modification where the fittings were changed over for the super DC-3. At that time, I was not part of the hydraulics group. I thought you were referring to the—— [846]

Q. So that the record is straight, let me ask you when did you become part of Douglas Aircraft Corporation's hydraulic group? A. In 1934.

Q. And in 1934 I think it is your testimony they used the two-piece fitting? A. Yes, sir.

Q. And you continued on the hydraulics group from 1934 on; correct?

A. My responsibilities enlarged in 1941 and again in 1945, so that my work now covers more than simply the hydraulics group, and there is another engineer below me who is in charge of hydraulics.

(Testimony of Harold W. Adams.)

Q. All I want to get from you is did you have anything to do or did you have any voice in the change-over from the two-piece Parker fitting to the three-piece Parker fitting used on a DC-3?

A. I want to know which change-over you are referring to, the one in the early part of the war or the one last year? There have been two change-overs.

Q. I want the one where you went first from a two-piece to a three-piece. A. Yes, I did.

Q. Were there any costs considered or mentioned? A. No, I don't believe so. [847]

Q. You know as a fact that the three-piece fitting costs more money? A. No, I don't.

Q. When we are talking about a DC-3, we are talking about a commercial plane; correct?

A. Yes, sir.

Q. That is sold to private companies, such as——

A. No, that change-over took place at the time that we were building only C-47's for the Air Force. That did not take place on commercial airplanes.

Q. When you talk about a C-47 you are talking about the Army version of the DC-3?

A. That's right.

Q. Let's go to what you call the Super DC-3.

A. That was last year.

Q. That was work done on privately-owned airplanes? A. That's correct.

(Testimony of Harold W. Adams.)

Q. And in that case you used the three-piece fitting of the AN type; correct? A. Yes.

Q. And instead of the two-piece fittings, which were on the ship, when parts were rejuvenated and replaced you standardized and went all out upon the three-piece AN fitting; correct?

A. Upon the Super DC-3, yes, that's right. [848]

Q. There was no government requirement that you use AN fittings on those ships, was there?

A. No.

Q. That was just a choice or desire on the part of Douglas Corporation; correct?

A. Yes, to standardize fittings.

Q. And you could have used the old type two-piece fittings?

A. I don't know. Does Parker still make them?

Q. Yes. Don't you know?

A. No, I didn't know they still made them.

Q. That brings up the next question. Have you ever tested the difference between a two-piece fitting of the kind that was first used on the DC-3 in 1934 and the three-piece Parker fitting of the AN type? A. I have tested both fittings, yes.

Q. As to their operative characteristics?

A. Yes.

Q. Which fitting would you say was the better of the two fittings?

A. As far as holding pressure and so on is concerned, I haven't found any difference. The big advantage of the three-piece fitting of course is that it is so much easier to remove, and that is why we

(Testimony of Harold W. Adams.)

like it. Because it is only necessary to—well, perhaps I can describe it. In [849] disassembling or assembling the three-piece fitting it is only necessary to pull the line off the body by a distance equal to the length of the flare, and even then it is not necessary to pull it directly off, it can be pulled off at the angle of the flare, the nose of the fitting, 37 degrees. In the case of the two-piece fitting the nut is down in a hole in the body which has a depth of about $1\frac{1}{2}$ diameters of the two, which is to say it is down in a hole in the body probably five times and must be withdrawn a distance of probably five or six times as great and pretty nearly straight out, as compared with the three-piece fitting which only has to be withdrawn a very short distance and can be withdrawn at an angle. So if we have a rather short line going quite directly between two fittings, it is far easier to get the line off when the fittings are of the three-piece type. Because with the two-piece type it would be necessary to shorten up the line, or something. In fact, usually it is necessary to remove one of the two units at one end of the line, because we can't pull the fitting out—pull the nut and flared tube out of the fitting, if it is only a short line between two fixed fittings. So that is the principal reason why we went to that type fitting.

Q. You said in so far as holding pressures were concerned?

A. Yes. [850]

Q. Have you made any fatigue tests or vibration tests of tubes wherein you used the three-piece Parker type AN fitting, as against the two-piece

(Testimony of Harold W. Adams.)

Parker type fitting that you used on the DC-3's in 1934? A. Yes.

Q. Which worked out best?

A. I don't remember any significant difference between them. They all break off at the base of the flare.

Q. There are other problems over and above just sealing pressure; correct? A. Yes.

Q. There is what we call vibration?

A. Yes.

Q. Fatigue? A. Yes.

Q. And there is turbulence, that is, shock tests of the flow of fluid through the pipes or tubes?

A. That is a pretty negligible effect in hydraulic work.

Q. You didn't mention anything about that in your book, did you? You wrote a book?

A. That's right. Through fittings?

Q. Through the pipes of which the fittings become a part or bring about the union of one pipe with respect to another pipe. [851]

A. Sure, I told how to calculate it.

Q. Isn't it a fact that turbulence sets up certain kinds of strains that bring about a rupture of the pipes or tubes?

A. You are using terms that I am not——

Q. I am just trying to use them as an ordinary layman.

A. And I am trying to interpret what you mean.

Q. You follow me as long as I use the word "turbulence"?

(Testimony of Harold W. Adams.)

A. The principal disadvantage of having changes in section in a pipe, which I gather is what you are talking about, is that it increases the resistance to flow slightly through the fittings. This is a rather minor effect through fittings. It is larger where you have smaller holes and restrictions, as in valves and so on.

Q. Maybe I used the term "shock." Perhaps it would have been better to use the word "impulses." Do you understand what I mean by pulsations within the line? A. Yes.

Q. Does that set up vibrations? A. Yes.

Q. Is that to be avoided, if possible?

A. Certainly, the shock is.

Q. The fact that you have a three-piece fitting, does that help any at all in eliminating fatigue brought about by vibrations? [852]

A. Not that I have ever found out.

Q. Have you ever observed a flare that has been removed from a two-piece fitting, as to whether or not there has been any scorings on the flare?

A. I presume you mean on the back side of the flare?

Q. Yes. A. Not the sealing surface.

Q. I am talking about the back side.

A. Yes, you can see marks on the back [853] side.

Q. Isn't it true that whenever you have a scratch mark or a scoring, that you have a greater opportunity for fatigue or rupture at that point than at some other point of the tube?

(Testimony of Harold W. Adams.)

A. Yes.

Q. So that these markings or scorings do have their ill effect?

A. Well, offhand, I would certainly think they would, but it doesn't seem to be borne out by test, particularly.

Q. You know, as an engineer, it is desirable not to have outside of the flare, the back side, using your term, scored? A. Yes.

Q. It is something to be avoided; correct?

A. Yes.

Q. Now, the Douglas Company does provide torque wrenches for its operators? A. Yes.

Q. For its mechanics? A. Yes.

Q. And they sometimes, notwithstanding the use of torque wrenches, still overtighten; correct?

A. I suppose they do, although the operators in service, I think, are principally responsible for any overtightening [854] that goes on.

Q. When you say "operators in service," you are talking about out in the field? A. Yes.

Q. In other words, the problems are greater when you are away from the Douglas plant with close supervision as given by the Douglas Corporation; correct? A. That's right.

Q. But notwithstanding the fact that you tell someone or instruct someone to use 200 pounds torque, they nevertheless overtighten?

A. It occasionally happens, yes.

Q. And they do that overtightening notwithstanding that there is supervision on the job?

(Testimony of Harold W. Adams.)

A. Yes.

Q. And they do that overtightening notwithstanding the fact that you check and you inspect as well as you can? A. Yes.

Q. Now, it is desirable to guard against that kind of overtightening, if at all possible, isn't it?

A. Yes.

Q. It is something to be avoided? A. Yes.

Q. It was really that overtightening that brought about, using your term, the suggestion of cutting the inside [855] angle of the flare on an $18\frac{1}{2}$ degree angle, so that in the event there was overtightening, there would be less likelihood of shearing the flare off and having the tube pull away from the fitting; correct?

A. That is correct. That was done in the early part of the war, incidentally, when we did not have torque wrenches.

Q. Would you say that you could go back to the old style now that you have torque wrenches?

A. I don't know whether I would—I don't think I would recommend going back to it, no.

Q. In other words, notwithstanding the fact that you have torque wrenches, there is a desire to have the added degree of safety? A. Yes.

Q. Sufficient to take care of the safety element?

A. Well, we can't see that does any harm.

Q. It does do some good? A. Yes.

Q. And it does good at a time when someone disregards instructions or proceeds to torque up a little higher than he should?

(Testimony of Harold W. Adams.)

A. That is correct.

Q. So that what you have suggested here, using again your term, was something that would give just an added degree [856] of safety at the fitting where the tube is connected to a body member; correct?

A. Yes.

Q. And if, of course, the operator just follows exactly the instructions that you initially give him with respect to torquing, you wouldn't necessarily have to provide the added safety feature?

A. That is right.

Q. So that your added safety feature is something that is only brought into play when someone does something not according to instructions?

A. That is correct.

The Court: May I ask a question?

Mr. Freeman: Yes.

The Court: Is that sleeve that you have got upon the model there the sleeve that is being used now?

The Witness: Yes, sir, in the small sizes, in the copper silicon sleeve, that is used with the aluminum tubing.

The Court: That is not the sleeve described in the Parker patent in question, is it?

The Witness: That is the AN sleeve.

The Court: I am talking about the angle there. What is it, 18 degrees——

The Witness: You mean, does it look like the figures of patent 2,212,183? [857]

The Court: I am asking you.

(Testimony of Harold W. Adams.)

The Witness: No, it doesn't look like this sleeve.

The Court: In other words, the sleeve that you are using today is not in all respects the sleeve that is in the patent in question, is it?

The Witness: No, I don't think so.

The Court: I am asking you.

The Witness: Well, no.

The Court: Although there does appear to be on Fig. 2 an angle between c and b?

The Witness: Yes. However, this is quite a small angle, and in Fig. 3, where the fitting has been tightened, this angle disappears. That does not appear in our fittings having the $18\frac{1}{2}$ degree angle.

The Court: Is that a tightened fitting there?

The Witness: No. That is an untightened fitting there. But when they are tightened up, it doesn't get full bearing on that surface.

The Court: What I want to know is this. Is the sleeve you are using today the sleeve that is described in patent 2,212,183?

The Witness: The reason why I am hesitating is because we use two types of sleeve today, one type that is cut away to this $18\frac{1}{2}$ degree angle, and one that is not. Certainly, the one that is cut away—— [858]

The Court: I thought you told me that is the one you were using.

The Witness: In the small sizes, in the copper silicon sleeve.

The Court: All right. In the small sizes, is

(Testimony of Harold W. Adams.)

that the sleeve that is described in patent 2,212,183, in small sizes?

The Witness: No.

The Court: Is that the standard sleeve?

The Witness: Yes, sir. That is the AN standard sleeve.

The Court: Is that the sleeve that is made by either one of the defendants?

The Witness: Yes.

The Court: Which one makes that sleeve?

The Witness: They all do, as far as I know.

The Court: Is that the sleeve that is made by Parker?

The Witness: Yes.

The Court: You mean Parker is making that sleeve?

The Witness: Yes.

The Court: And that is not the sleeve that they have described in the patent?

The Witness: As far as I know, that is the only sleeve they are making in copper silicon in the small sizes.

The Court: Excuse me for breaking in.

Mr. Freeman: Are you through? [859]

The Court: Yes.

Q. (By Mr. Freeman): Mr. Adams, the drawing that we have here, Defendant's Exhibit VV, shows a portion of the nose end or a portion of the sleeve in engagement with a portion of the flare; correct? A. Just out of engagement.

Q. When you say "just out of engagement,"

(Testimony of Harold W. Adams.)

you mean it is finger tight or before the parts have been tightened up?

A. Not quite touching, just a slight air space between them.

Q. As we start to screw the nut up, it is a fact that the sleeve will then move longitudinally along the tube and engage the flare; correct?

A. Yes.

Q. And as it engages in the flare, does it, as a fact, imbed itself in the flare of the aluminum tube? A. Yes.

Q. And as it imbeds itself in the flare of the aluminum tube, it is a fact that the space which is indicated in white between the red and the yellow on the drawing actually becomes smaller in size? A. Yes.

Q. So that you have initial contact of one dimension when you start the sleeve at finger tight position, and another [860] area contact after the sleeve has been moved home?

A. The contact area increases as the red sleeve imbeds itself in the back of the tube vv.

Q. And as that contact area increases, the corollary to that is that the clear white portion between the red sleeve and the yellow tube and flare becomes less in overall size?

A. That's right, yes.

Q. And the amount of the disappearance of that white portion between the red sleeve and the yellow tube depends upon the torque pressure used?

A. That's right.

(Testimony of Harold W. Adams.)

Q. Now, the drawing that you had or, rather, the photograph that you produced of a Douglas DC-3 investigation that you made——

The Court: Before you get onto that, Mr. Freeman, could I ask you a question?

Mr. Freeman: Yes.

The Court: In comparing the sleeve in the diagram on the blackboard and the sleeve in the Parker 2,212,183, it is very obvious that the two sleeves are not identical in shape and in form. It has been agreed, I think, by all concerned that the only thing that is important here is the sleeve.

Mr. Freeman: There is a little more to it than that, [861] your Honor. I followed up your question of this witness so that I didn't run away from what your Honor said and what this witness said to you when I brought out, and I again repeat, that the white portion between the red sleeve and the yellow tube and flare diminishes in size so that you have what we call in claim 1 initial contact of an area less in overall size, so that when you drive the sleeve on home to bring about the final sealing, whether that white spot completely disappears or is only 40 per cent or 50 per cent, you still have the sum and substance of claim 1 of that patent when you have initial contact adjacent or close to the lower end or the toe end of the flare, and that you have greater contact as the nut is driven home to bring about the complete sealing.

The Court: Well, I didn't get to my question. I was just laying the foundation and you ran away

(Testimony of Harold W. Adams.)

with the ball. Now we will start all over again. The witness testified that the sleeve on the black-board was the sleeve that Parker was making. Is that correct?

Mr. Freeman: Oh, yes. It is one of the sleeves that Parker is making, just as it is one of the sleeves that the defendants in this case are making. It is the sleeve that has what we might call a double angle on the inside. [862]

The Court: Well, what I am trying to get at——

Mr. Freeman: We make that sleeve, yes.

The Court: That is one of the Parker sleeves?

Mr. Freeman: Yes, we make that sleeve.

The Court: And your contention is that that sleeve as made is according to the claims in your Parker patent?

Mr. Freeman: It is strictly in accordance with claim 1 of the Parker patent. It would not be in accordance with claim 2 of the Parker patent. It would be in accordance with claim 3 of the Parker patent.

The Court: To show my ignorance of patent law—and I admit that I am in the presence of experts—if you have a drawing in your patent, and your drawing discloses the form of the object, when you manufacture that object do you have to follow that particular form?

Mr. Freeman: I am very happy that your Honor asked that.

No. You have to show in a patent of the kind that we have here, or in any patent, a complete

(Testimony of Harold W. Adams.)

specification or an embodiment by which you can accomplish the end result which is called for in the claims. You do not have to follow exactly—let's say in one case there is an angle of 45 degrees, whether you make it 46 or 48 or 43 is of no consequence. What we make there and what we show in that drawing, and what we describe in the patent specification, is an [863] embodiment by which you can accomplish this result.

Now, take claim 1. We show in our disclosure of the patent drawing, and of the patent specification, which is nothing more than a word picture of what is shown in the patent drawing, a basis for writing a claim as broad as we can write. Now, if that claim 1—and that is what I am talking about—is directed to a sleeve in combination with a fitting comprising a nut and a body portion, for use with a tube, wherein you have what we call toe contact, in other words, we have initial contact, I think those terms have been used to mean one and the same, and as the sleeve is brought home for bringing about the sealing against the flare, you then have more than initial contact, but you have a greater area contact.

I haven't used the exact words of claim 1, but I have tried to use lay language, your Honor, in describing what we have in claim 1, and it is our position, and it was the reason for my examination of this witness on the very chart that they here produced, Defendants' Exhibit VV, where I brought out that you have a given amount of

(Testimony of Harold W. Adams.)

contact initially when the unit is what we call finger tight or just at the start, then as we apply pressure or torque, as it is sometimes used, to bring about a complete sealing, you then have greater area contact than you initially had for bringing about a complete seal. Now, that is claim 1. [864]

I think this is a good place for a recess.

The court: Well, all right. We will now recess to 25 minutes after three.

(A recess was taken.)

Q. (By Mr. Freeman): Of those 600 men at Douglas under your employ, how many of those are technical men? A. About 250.

Q. I think you were a member of the A6 Committee?

A. I was the first chairman of the Committee A6.

Q. Did you as chairman of that committee come in contact with Roland Berg, hydraulics engineer of the Republic Aviation Corporation?

A. Yes, I did.

Q. Is he a high-grade individual as you know him? A. As far as I know, yes.

Q. You have had a lot of contact with him?

A. Not a lot. Very little. Only at eastern meetings.

Q. You know him, though, as a hydraulic staff engineer of Republic Aviation Corporation?

A. Yes.

Q. I take it that you know that he too was on that A6 Committee at times?

(Testimony of Harold W. Adams.)

A. I don't remember his being on A6 at the time I had it. He has been on it later.

Q. Do you know Mr. Davies? [865]

A. Bob Davies?

Q. Yes. A. Very well.

Q. And he is with Parker Appliance Company?

A. That's right.

Q. I take it you have high regard for him, too?

A. I have, indeed, yes.

Q. As an engineer? A. Yes.

Q. As a hydraulics engineer? A. Yes.

Q. And you and he have at times discussed hydraulics problems with respect to fittings?

A. Yes.

Q. Let's turn to the Guyer patent No. 196,084, which is No. 4 in your book, your Honor, and I believe that you said it was one of the best references in answer to Mr. Huebner's examination of you this morning; correct? A. Yes.

Q. Now, that particular pipe coupling, as the patentee says, relates to a lead pipe; correct?

A. Yes. Well, I think so. Let me see. Yes.

Q. And it is true that in Figures 2 and 3 of the patent the sleeve on the inside, or the thing that you call the sleeve, has some corrugations or teeth and grooves? [866] A. Yes.

Q. And it is likewise true that the body member in Figure 3 includes some teeth and grooves?

A. Well, there don't seem to be any in my copy here. I don't see any.

Q. Will you turn to Figure 2, and you there note the small letter v, do you not? A. Yes.

(Testimony of Harold W. Adams.)

Q. And you note that the lead line in one case projects from above the figure to the upper surface of the flare of the pipe; correct? A. Yes.

Q. And you notice another lead line v, from within the pipe itself, projecting upwardly?

A. Yes.

Q. Do those both go to the same corrugations and grooves, or do they go to grooves which engage with the inside of the flare, as well as to grooves that engage with the outside of the flare?

A. Well, it looks to me like they just engage the outside of the flare. [867]

Q. Have you read the patent carefully?

A. Yes. I couldn't quote it word for word right now. Fig. 1 doesn't show any grooves on the outside of the male member.

Q. Fig. 1 also includes the figure on the left-hand side; correct?

A. I was referring to the right-hand side of Fig. 1.

Q. Well, on the left-hand side, that is still part of Fig. 1; correct? A. Oh, yes.

Q. And in that particular case, the flare on the pipe L is made on the job, isn't it?

A. Well, I would have to read the patent to find out. It shows them disassembled, of course. Yes, it is intended to be flared on the job.

Q. And that particular flare that is then formed by putting the parts together includes really two different angles on the flare?

A. Yes, that is correct.

(Testimony of Harold W. Adams.)

Q. Have you ever used a pre-formed flare with two angles on the flare itself?

A. Let me see. I don't remember any.

Q. Of course, there is no problem so long as you use a lead pipe. It flows or conforms readily to any contour between two hard members; [868] correct?

A. Well, yes. But, incidentally, I may have answered your other question wrongly in a way. We do make what we call double flares on aluminum tubes in which we first expand the tube and then reverse it completely back on itself. We do this commonly in oxygen system tubing, in which the flare is bent completely back on itself, 180 degrees.

Q. But in that case, as far as the seat is concerned, it is a single seat?

A. Yes, that is right.

Q. And in this particular case, there are two seats on the body member against which the lead pipe L rests; correct?

A. That is correct.

Q. Let's take Fig. 2 or Fig. 3. You go along with me that the inside of the sleeve includes grooves and ribs which imbed themselves within the lead pipe; correct?

A. Yes.

Q. Would you be able to remove that sleeve easily in the event of disassembly of the parts?

A. No, I wouldn't think so.

Q. Is it desirable at times to pull the sleeve back away from the flare?

A. Well, I can't think of any good reason to.

(Testimony of Harold W. Adams.)

Q. Is it true that after a fitting has been connected and then disconnected, that the parts assume a position when [869] used the second time different than the parts assume when first used?

A. Yes, slightly.

Q. In other words, if there is some expansion of the flare itself, it takes a set so that when you start to use that flare a second time, you have a larger flare?

A. The flare changes slightly with each tightening usually.

Q. And thus in order to get the same amount of torque and in order to get the same amount of sealing contact, or effective sealing contact, do you change the torque any?

A. No.

Q. It is true, though, when using, say, 200 pounds torque the second time or the third time or the fourth time, that the sleeve will imbed a little more within the flare?

A. Yes, that is true.

Q. So that you have a different type of operation the second and third and fourth time?

A. Not a different type. The dimensions are a fraction of a thousandth different.

Q. Dimensionwise, there is a change?

A. Yes.

Q. I think you go along with me that if it took five times torque on your Exhibit VV to shear [870] the flare off of the tube the first time, that it might take only two or three times torque if it were done the second or third time?

A. That is right.

(Testimony of Harold W. Adams.)

Q. So that with each use or assembly of the fitting and then reassembly, which, of course, is a requirement, a different condition actually exists with respect to possible overtorquing?

A. Well, there is a slight difference in degree, not a difference in type or kind.

Q. The difference in degree is in one case you have to overtorque five times and in another case you have to overtorque only two times?

A. No. I think that is not quite right. The difference in degree is that the first time you might have to overtorque five times and the next time you might have to overtorque perhaps only four and nine-tenths times, and by the time you had done this 20 or 30 times, you might then have to only overtorque three or four times. It is not the difference between 5 and 2 in one operation at all.

Q. It is not?

A. No, it is not that much.

Q. Have you read your book recently on overtorque?

A. No, I don't think so. As a matter of fact, I don't believe I have. [871]

Q. Do you recall stating as a fact in your book that initially it required five times overtorquing, whereas if it were used the second or third time, it might only be twice or three times overtorquing to shear off the flare? A. No.

Q. You don't recall that?

A. Not offhand, no. I may have said it, however.

(Testimony of Harold W. Adams.)

Q. Well, I take it whatever you said in your book was predicated upon factual tests that you yourself ran?

A. Tests that I had made at that time, yes.

Q. Now, I meant to ask you before recess whether or not the photograph that you here produced from the Douglas files, Defendants' Exhibit UU——

A. Yes.

Q. ——was that one of a special test that you ran or is it one taken from the cracked-up DC-3?

A. Well, it was not a DC-3. It was an A-20, as I remember. But that was a special test.

Q. This has nothing to do with the DC-3 failure about which you testified?

A. Except that it was not a DC-3. It was an A-20, as I remember. That was made as a consequence. This is a test that was made as a consequence of that trouble. This is one of a series of tests.

Q. Can you tell me what torque was used to bring [872] about this result?

A. I would have to refer to the report to get the exact figure.

Q. Do you know whether it was five times, three times, or two times normal torque?

A. Well, let's see. I don't know. I don't remember exactly. It must have been somewhere around, I would say offhand it was probably three or four times. It is in the report, however. [873]

Q. Would you mind producing that report in the morning?

(Testimony of Harold W. Adams.)

A. I think so. In fact, we may have those pages around here.

Mr. Huebner: I think we have it here today, if you want it.

Mr. Freeman: May I borrow it this evening?

Mr. Huebner: I will have to ask the witness to identify it, though, among some papers I have got, if that is agreeable.

Mr. Freeman: We will get it after 4:00 o'clock and not take the court's time.

The Witness: The Parker Company has a copy of that report, too; however, you may not have it here, of course.

Q. (By Mr. Freeman): Will you now turn to the McConnell patent, which is No. 290,446, Defendants' Exhibit TT.

The Court: What number is that in the book?

Mr. Freeman: That is No. 5, your Honor.

Q. (By Mr. Freeman): That patent specifically refers to the use of lead pipe, does it not?

A. No, it doesn't. It says in line 20,

“including a hard metal pipe with a soft metal connecting pipes of different materials together,”

and refers to soft metal pipes. It seems to say all along [874] “soft metal.”

Q. What is that?

A. It seems to say “soft metal.”

Q. Isn't it true that in Figure 1 on the left-hand side you there have a lead pipe A?

(Testimony of Harold W. Adams.)

A. Are you reading from the patent?

Q. No. I am just looking at the drawing, Figure 1.

A. I don't know how you can tell it is lead from looking at the drawing.

Q. You go ahead and look at the patent specifications. I thought you knew.

Well, you go along with me that it is a soft metal pipe A?

A. Yes. It is not a lead pipe. It is a soft metal pipe.

Q. The pipe A3, on the other side of that figure, what does that refer to?

A. That is referred to as a hard metal pipe.

Q. When you connect a hard metal pipe to a body member, you then use an insert piece A2; correct? A. Yes.

Q. And that insert piece then on the right-hand side, that is of soft metal? A. Yes.

Q. It serves very much as a packing? [875]

A. Yes. Just as the flare of pipe A does on the left-hand side.

Q. When you seal a lead pipe or a soft metal pipe, do the parts take a set? A. Yes.

Q. So that with each operation you change the conformation of the flare, and once it has been changed due to the torque used it remains in exactly that position?

A. Practically exactly that position.

Q. Well, soft metal that will flow or yield or give will take a set; correct?

(Testimony of Harold W. Adams.)

A. All metal, to the best of my knowledge, will take a set. There is no definite distinction in engineering, that I know of, between soft and hard. I refer to it as being material softer than the material of the fitting, when I am talking about soft metal. And that is normally what is used in aircraft. We normally use a tubing which is softer than the material of the fitting.

Q. 52SA?

A. 52S02. That is Aluminum Company of America's designation.

Q. Is it true that in the type of connection shown in Figure 1 of the McConnell patent on the right-hand side that the packing member will be compressed when the nut D is tightened? [876]

A. It will be deformed. I don't think "compressed" is a proper word.

Q. When we talk about "deformed," using your terminology, is it true, then, that the cross-sectional area of the member A2 will lengthen out?

A. The length of the part will increase, yes.

Q. Isn't that sometimes called cold flow of metal?

A. No. Cold flow refers to a movement after parts have been put into position, not while they are being positioned. After parts have been put into position if the material then continues to move, that is called cold flow.

Q. And it is a fact that the shoulder of the sleeve, calling it that, in Figure 1 of the McCon-

(Testimony of Harold W. Adams.)

nell patent, is directly opposite the angular portion on the inside of the sleeve? A. Yes.

Q. And substantially midway or at least forwardly somewhat of a mid-point on the angle of the sleeve on the inside?

A. Well, it isn't forward of a mid-point. It is just about at the mid-point.

Q. And it is true that in the drawing Figure 1 of the McConnell patent that the enlarged portion of the sleeve engages or is shown in contact with the inner wall of the nut D? [877]

A. Well, it is shown in contact. I would say that normal manufacturing clearance would exist.

Q. Would you call that a slide fit, loose fit, or what kind of fit would you call it?

A. That would depend on how Mr. McConnell made them, I think.

Q. Can't you tell from the patent drawing?

A. No.

Q. Speaking about how Mr. McConnell made them, have you ever seen a fitting corresponding in all details to the McConnell patent?

A. No.

Q. While I am at it, I am going to ask you the same question with respect to the Guyer patent No. 196,084. A. No.

Q. Have you ever seen a fitting corresponding exactly to the Bjorling publication?

A. No. Wait a minute. Just what do you mean by exactly? How exactly?

Q. Have you ever seen a Bjorling fitting?

(Testimony of Harold W. Adams.)

A. No.

Q. I am going to ask you the same question with respect to Parker patent No. 1,977,241.

A. No, I have never seen one exactly like that.

Q. Have you ever made any for test, or otherwise, [878] corresponding to the Parker patent No. 1,977,241? A. No.

Q. So your testimony was just your opinion as an engineer in hydraulics?

A. Wait a minute. My testimony in what respect?

Q. In respect to the Parker patent, as to whether it would or wouldn't work, or what it would do.

The Court: When did he testify to that?

Mr. Freeman: He is talking about this particular patent.

The Witness: I don't remember testifying to that. Perhaps you can read that back to me.

Q. (By Mr. Freeman): Let me reframe my question. Your testimony about not making the head solid was predicated only upon a reading of the patent itself?

A. Testimony on not making the head solid? I am afraid I still don't—I am sorry to be so stupid here, but I am sorry I don't follow you exactly. What did I say about not making the head solid?

Q. I will let the record speak for itself.

A. Yes, I would like to hear it.

Q. Isn't it a fact that in the Parker patent No. 1,977,241 Mr. Parker was directing his attention there to misalignment of the parts?

(Testimony of Harold W. Adams.)

A. That's correct. [879]

Q. And in that case he provided instead of a straight shoulder-to-shoulder contact between the sleeve and the nut, an arcuate or spherical contact?

A. That's right.

Q. And in that particular case he permitted the parts to position themselves out of alignment and still have a contact between the shoulder and the upper portion 10 of what you have called the sleeve? A. That's correct. [880]

Q. And in Fig. 2 of the drawings, he shows the parts so misaligned? A. That is correct.

Q. And in the Parker patent, Plaintiff's Exhibit No. 26, which is No. 1,977,240, I think you testified that the shoulder engaged the sleeve so as to compress the sleeve inwardly against the flare of the tube; correct?

A. I said there would be a hoop compression applied to the sleeve by the shoulder.

Q. And by compression, that means inwardly directed as distinguished from expansion?

A. That is right.

Q. And the Parker patent in suit refers to hoop tension or expansion, does it not?

A. Well, not in that region, as I remember. I think it refers to it at the toe of the sleeve, doesn't it? Well, the patent in suit, as I interpret it, says—in fact, as I read it, on line 69, it says—this is page 2, line 69.

Q. You are reading from the patent in suit?

A. Yes.

(Testimony of Harold W. Adams.)

Q. Proceed.

A. "whereby the clamping face of the head against the tube end is determined by the spring tension of the metal forming said head."

I assume that means in the region where the head is in [881] contact with the tube end and the region where I am talking about hoop compression is at the opposite end of the sleeve head. There would be hoop tension in the toe of the sleeve in the fitting of patent No. 1,977,240, I believe.

Q. Have you studied the file wrapper of the Parker patent in suit? A. Yes. I read it.

Q. Have you read the file wrapper of Parker patent 1,893,422? A. I don't think so.

Q. That is the one that is referred to in the patent in suit in the first paragraph.

A. I believe that I only read one file wrapper.

Q. Then I take it you didn't read the file wrapper on 1,977,240, either?

A. I think that is right.

Q. And then I take it you are not familiar with the file wrapper references or the references referred to by the Patent Office during the prosecution of the two Parker patents, 1,893,442, and 1,977,240?

A. Yes, I think that is right.

Q. Do you know anything about Patent Office classification? A. No, sir.

Q. Do you know how the Patent Examiner keeps the [882] prior art, the reference patent, that he refers to on any given subject? A. No, sir.

(Testimony of Harold W. Adams.)

Q. Turning now to Benzion, Patent No.——

The Court: Mr. Freeman, before you get into that, I notice it is 4:00 o'clock, and maybe we'd better desist until tomorrow.

We will stand at recess now until 10:00 o'clock tomorrow morning.

(Thereupon, at 4:00 o'clock p.m., an adjournment was taken until 10:00 o'clock a.m., Thursday, July 6, 1950.) [883]

Thursday, July 6, 1950

The Clerk: Further trial in the Parker Appliance v. Masters and Collins matters.

HAROLD W. ADAMS

called as a witness by the defendants, having been previously sworn, resumed the stand and testified further as follows:

Cross-Examination

(Continued)

By Mr. Freeman:

Q. Will you turn to the Hewitt patent No. 1,820,020—No. 16 in your book, your Honor—and tell me, Mr. Adams, if there is provided a space between the sleeve member and the inner wall of the nut substantially as is shown in the Bjorling publication. A. Yes.

Q. And in that case, that is, in the Hewitt patent, the walls of the sleeve and the inner wall of

(Testimony of Harold W. Adams.)

the nut are parallel with each other? A. Yes.

Q. That is the space at the region of contact is substantially or is identical with the space at the toe of the sleeve?

A. Yes, except for the radius of the nut.

Q. You know that the Hewitt patent was a file wrapper [885] reference?

A. I don't remember.

Mr. Freeman: For your Honor's information, a file wrapper reference—Mr. Huebner may have explained this to the court—is a patent reference that was considered by the Patent Office, and specifically referred to by the Patent Office during the prosecution of the patent in suit.

The Court: I understand that. But the thing I am wondering about is how much force and effect the court should give to the file wrapper. Does the finding of the Patent Office, or the Patent Commissioner, that a patent should be issued, is that binding in any way upon the court?

Mr. Freeman: Is is not binding upon the court, but it raises a presumption that those skilled in doing this particular kind of work, the Examiner, the Commissioner, have carefully checked the prior art patents, and that they considered it to be an invention, that is, the Parker patent in suit was allowed over and above the Hewitt patent with the two straight walls equally spaced apart throughout their length.

The Court: Then there is just a presumption?

Mr. Freeman: That is correct.

(Testimony of Harold W. Adams.)

The Court: And if all other things are equal, then the presumption should be the controlling factor?

Mr. Freeman: Right. [886]

Q. (By Mr. Freeman): Now, Mr. Adams, you kindly let me have the Douglas Aircraft Company report from which the defendant offered in evidence a photograph as Defendants' Exhibit UU; that is correct, is it not? A. Yes.

Q. And I hand you another photograph from that report which is Figure No. 3, photograph No. 22695, and that, too, is a photograph from the same report; correct? A. Yes, sir.

Mr. Freeman: I would like to offer in evidence as Plaintiff's Exhibit 78 the photograph produced by the witness Adams, being photograph No. 22695, Figure 3.

The Court: It may be received.

The Witness: That is a photostat, isn't it, rather than the one from the report? I would like to keep the report and let you use a photostat of it.

Mr. Huebner: We have an extra photographic copy if it may be substituted.

The Witness: I think that is a photostat of it that he has.

Mr. Huebner: We actually photographed the photograph.

Mr. Freeman: I would like to substitute the photograph of the photograph so that the original may remain in the files of the Douglas Company.

The Court: It may be substituted. [887]

(Testimony of Harold W. Adams.)

(The photograph referred to was marked Plaintiff's Exhibit 78, and was received in evidence.)

Q. (By Mr. Freeman): And in the photograph, Plaintiff's Exhibit 78, you there used a sleeve having an outside angle on it?

A. Well, I don't remember it exactly. I will have to look at it. [888]

Q. Well, can you tell from looking at the photograph?

A. Well, let's see. It is hard to tell whether that is on the—yes, I think this sleeve has an outside angle.

Q. And the photograph is magnification of 30 times actual size?

A. I don't think it is that much, no.

Q. So that I am straight, is the magnification of the photograph that I have produced as Plaintiff's Exhibit 78 the same magnification as the photograph which you produced as Defendants' Exhibit UU?

A. Well, it is approximately the same.

Q. Well, now, do you recall what magnification you gave us with respect to Defendants' Exhibit UU?

A. No, I don't. I am pretty sure it is not 30 times, because that would make a quarter-inch tube come out 30 quarters or $7\frac{1}{2}$ inches, and that obviously isn't $7\frac{1}{2}$ inches.

Q. Well, will you agree with me that the magnification of Fig. 3, which I have produced as Plain-

(Testimony of Harold W. Adams.)

tiff's Exhibit 78, is substantially the same magnification that you testified to with respect to Fig. 2?

A. Yes, it is approximately the same.

Q. At the time that you ran your tests in October, 1940, were torque wrenches available?

A. I believe that in those tests we used an ordinary [889] wrench with a spring scale on the end of it, although we might possibly have used a torque wrench. In any case, the torques were measured.

Q. I take it you haven't seen any fitting actually manufactured in accordance with the Benzion patent which you referred to.

A. No.

Q. The Bjorling publication shows the screw threads projected out beyond the wall of the sleeve; correct?

A. Yes.

Q. In other words, the smooth portion of the inside of the sleeves is undercut?

A. Yes.

Q. Using that term.

A. Yes, that is correct.

Q. So if there is any expansion of the sleeve within the nut, there is greater likelihood of coming in contact with the threads than if the wall and the threads were of the same diameter?

A. No, no greater likelihood. If it expanded——

Q. In other words, in Bjorling, if you expand into the undercut, will the nut back away easily?

A. No.

Q. Can you tell me whether or not Plaintiff's Exhibit 78, which is Fig. 3 of your report, illus-

(Testimony of Harold W. Adams.)

trates the fitting at [890] the recommended torque of 63 inch pounds for size $\frac{1}{4}$ by .032?

A. Yes, as I remember, that is correct.

Q. And that is what your report states?

A. Yes.

Q. In other words, you there have what may be referred to as normal torque?

A. That's right.

Q. And in that case the sleeve has imbedded itself in the flare of the tube; correct?

A. Slightly, yes.

Mr. Freeman: That's all [891]

Redirect Examination

By Mr. Huebner:

Q. Mr. Adams, on the lead tube physical exhibits which you produced yesterday, and which are in evidence, it was called to your attention, I believe, that the length of the flares on the tubes was some 20/1000ths less than standard length for aluminum or other metallic tubes? A. Yes.

Q. What would be the effect on those lead exhibits if the flares were made standard length?

A. I think there would be no appreciable effect, because the flare as made extended beyond the end of the sleeve.

Q. Now, some comments were elicited from you in cross-examination concerning the advantage of the easy removal of a three-piece fitting over a two-piece fitting. A. Yes, sir.

(Testimony of Harold W. Adams.)

Q. Are those advantages any more present or pronounced in the subject disclosure of the Parker patent in suit than in any generally similar three-piece fitting having the cooperating parts of a body, a sleeve, and a nut? A. No.

Q. Is there any advantage with respect to removal of the three-piece fitting demonstrated in the Parker patent in suit over the previously known AC-811 fitting? A. No. [892]

Q. Or over the McConnell patent 290,446?

A. No.

Q. Some point was made or discussed concerning the advantage of safety from over-torquing obtained by the double angle shown in Exhibit VV, the chart hanging on the blackboard; may that same advantage from overtorquing be obtainable by use of the structure shown in the Parker prior patent 1,977,241?

That is No. 18, I believe, in your Honor's book of patents.

A. I could not say without test whether the 10-degree difference shown in Figure 3 of the patent 1,977,241 is sufficient to produce the effect that is obtained by this sleeve shown in Exhibit VV.

Q. Is the same principle involved in both, the Exhibit VV and the Parker patent 1,977,241?

A. Yes, the same principle is present in that there is a considerable angular difference between the nose of the fitting and the inside angle or countersink of the flare. I meant "sleeve," the last word I said.

(Testimony of Harold W. Adams.)

Q. I direct your attention to the language in the last few lines of claim 1 of the patent in suit, 2,212,183, beginning in line 17, as follows:

“whereby during the clamping action said head will be expanded and moved forward [893] along the flared end of the tube into intimate contact with the outer surface thereof”

and I emphasize the next words:

“through substantially the entire extent of the flared surface on the sleeve head.”

In the normal torqueing installation of the double angle assembly illustrated in Exhibit VV, will that condition or relationship be present?

A. No.

Q. To clarify any possible question in the court's mind as to the two forms of sleeve manufactured under the AN standard, I will ask you again if VV illustrates one of the forms, namely, sizes six, four and two, which are manufactured under the AN standard using a specific kind of metal.

A. Copper silicon sleeve, yes.

Q. All right. Now, refer to Exhibit O and state whether this exhibit illustrates the other AN standard sleeve manufactured by the defendants and by Parker.

A. Yes, this illustrates the AN standard sleeve that is not cut away at the $18\frac{1}{2}$ -degree angle. [894]

Q. Now, there are those two types, then, of

(Testimony of Harold W. Adams.)

standard sleeves manufactured under the AN series? A. That is correct.

Q. And no others? A. That is correct.

Q. On Exhibit O, is the outside angle on the flare of the tube and the inside angle of the sleeve the same? A. Yes.

Q. Then again directing your attention to those same lines which I quoted a moment ago from claim 1 of the patent in suit—withdraw that question and start it over.

Directing your attention again to claim 1 of the patent in suit, 2,212,183, and reading the following language from that claim:

“said head having the inner surface thereof provided with a coniform flare so shaped that the initial contact of the head with the flared end of the tube is at the free end of the head and adjacent the outer end of the flared end of the tube.”

Is it ever possible that the relationship described in the language quoted from the claim may be obtained by the use of the AN sleeve and its related parts illustrated in Exhibit O? A. No. [895]

Q. There was some discussion in your cross-examination concerning the transition area, which is apparently the arc adjoining the longitudinal outer surface of the tube with the angular surface of the flare. I believe the point was made that in Mr. Masters' drawing, prepared in collaboration with you, Exhibit VV, it was not fully representative

(Testimony of Harold W. Adams.)

of the facts in that the division lines showed the flare as commencing outside of the transition area, thereby purportedly minimizing the amount of angular surface of the sleeve in contact with the flare of the tube.

With reference to Exhibit O, can you explain to the court what effect, if any, that transition area has in relation to the body of the fitting? I will hang up Exhibit O again.

A. The transition area, of course, since it is on a radius, draws away from the nose of the body, and therefore would not be considered a part of the sealing surface.

Q. And in that respect, not a part of the flare?

A. I wouldn't consider it a part of the flare.

Mr. Huebner: Your Honor, I am about through, but I would like to have a very brief conference with my partner, Mr. Beehler, before stopping.

(Short interruption.)

Q. (By Mr. Huebner): Mr. Adams, you were asked yesterday by Mr. Freeman, on page 872 of the record, the following [896] question:

“Q. Do you recall stating as a fact in your book that initially it required five times overtorqueing, whereas if it were used the second or third time, it might only be twice or three times overtroqueing to shear off the flare?”

And your answer was:

“A. No.”

(Testimony of Harold W. Adams.)

Do you wish today to modify or correct that statement?

A. Yes. I said in my book a small number of times. I had just finished running these tests, to which reference has been made, in connection with the modified sleeves, and in this test we tightened fittings from five to in some cases 55 times. I had in mind at the time I wrote the book by "a small number" somewhere in the neighborhood of 10 to 20 times. [897]

Q. Now, it was suggested to you yesterday by Mr. Freeman that the prices on the 810, two-piece fitting, were less than the prices on similar sizes of three-piece AN fittings, and I believe you testified you did not know the comparison of prices. Have you since ascertained the comparative prices?

A. Yes.

Q. What are they?

A. I now know that the price for comparable fittings is on the order of half or less for the AN fittings. The AN fitting, according to prices that we obtained about a year ago, at the time the Super DC-3 was being modified, the prices for AN fittings at that time were in the neighborhood of half of the price for the corresponding 810 fitting. These were obtained from our usual suppliers. That was the Parker Company in the case of the 810 fitting, and our usual vendors in the case of the AN fitting.

Q. I would like to ask you whether if you over-tightened a fitting having the structure of the Parker patent in suit, would that structure shown

(Testimony of Harold W. Adams.)

therein avoid a pinch-off which the Douglas improvement shown in Exhibit VV avoids?

A. No. It is necessary to have a substantial difference in angle between the countersink on the inside of the sleeve and the angle on the nose of the body in order that when the sleeve and body come into contact after pinching off the tube [898] there is still a substantial thickness of tubing remaining at the base of the flare. This requires a fairly large angle. On the order of—well, the AN fitting has an angle difference of—the difference between 37 and $181\frac{1}{2}$.

Mr. Huebner: No further questions.

Recross-Examination

By Mr. Freeman:

Q. Those prices that you checked were prices of a year ago and not back in 1940?

A. A year ago.

Q. And you recognize, do you not, that the two-piece fitting has substantially become obsolete from 1940 on? A. Yes.

Q. And you recognize, further, that it is substantially out of production? A. Yes.

Q. And you recognize, further, that it can be made on a shop order?

A. Yes, it would have to have been for the Super DC-3, I should think.

Q. And you recognize, further, that starting along in 1940 and thereafter that hundreds of millions of the AN fittings were made?

A. Certainly.

(Testimony of Harold W. Adams.)

Q. Volume production? [899]

A. Certainly.

Q. And you recognize, further, that price, when the volume goes up, price goes down?

A. Certainly.

Q. And you recognize that when manufacturing falls off of a given quantity and requires special set-up, price goes up? A. Certainly.

Q. You made no comparison of prices back in 1940, did you?

A. No. You referred to the prices at the time that the Super DC-3 was being made.

Q. I also referred to the time that you made the changeover in the first place.

A. Yes. On the C-47, the Army airplane.

Q. Yes. And that was back in 1940 or '41?

A. Yes, in that neighborhood.

Q. And at that particular time they were still manufacturing the 810 in volume; correct?

A. I presume they were.

Mr. Freeman: That is all.

Mr. Huebner: No further questions.

Mr. Beehler: Will Mr. Wolfram please take the stand?

The Clerk: Is this further cross-examination?

Mr. Beehler: This is direct. [900]

The Clerk: As an adverse witness?

Mr. Freeman: He is not an officer or agent of the corporation, so he is bound by whatever he testifies to, and unless he is adverse he shouldn't ask leading questions.

JOHN N. WOLFRAM

called as a witness on behalf of the defendants, having been previously sworn, was examined and testified further as follows:

Direct Examination

By Mr. Beehler:

Q. Mr. Wolfram, I believe you stated you have been with the Parker Company 18 years or so?

A. That is correct, nearly 18 years.

Q. And that in 1932 you were directly connected with the engineering department in the preparation of drawings? A. Yes.

Q. Are you familiar with the drawings and dimensions which were used to actually manufacture the Parker fittings in the Parker Company in 1935? A. Yes, in a general way.

Q. I want to show you, Mr. Wolfram, Defendants' Exhibits comprising drawings of the Parker Company, drawing No. 2-1835, 2-1835-1, 2-1835-2. I believe those were Exhibits L, M and P. Did the Parker Company make fittings in accordance [901] with the dimensions of those drawings in 1935?

A. I think generally speaking that is correct, although these drawings are not shop manufacturing drawings as such. I think, I am not too sure about this, but I think that these drawings are more in the nature of inspection drawings where they weren't too much concerned with all of the detailed dimensions that you would use in set-up. By that

(Testimony of John N. Wolfram.)

I mean this: that there appear to be quite a number of fractional dimensions on these drawings, and I think that the shop drawings would have listed those in decimals with a closer tolerance than would be indicated by this drawing. In fact, there is no tolerance listed for the fractional dimensions on these drawings.

Q. Is it true that fittings as made by the Parker Company in 1935 would need to conform to the dimensions shown on these drawings?

A. I think that they probably would.

Q. Would that answer apply to the six size in the drawings before you?

A. I assume that they would. I am not positive, because, as I say, I am sure that these were not actual shop drawings, because the shop drawings at that time were individual sheets. [902]

Q. Would the dimensions on the shop drawings conform to the dimensions given on these drawings for corresponding sizes and corresponding portions of the parts of the fittings involved?

A. Well, I assume that they would. I am not too certain for just what reason this particular set of drawings was made. It is entirely possible that this set of drawings was made as a proposal of possibly some dimensions to be changed, because I do know that there were quite a number of changes made in the dimensions of the parts.

Q. Can you, Mr. Wolfram, before court convenes this afternoon, give us the precise dimensions for the No. 6 size on the parts given here on these

(Testimony of John N. Wolfram.)

drawings so that we may know whether or not these dimensions were the dimensions of fittings which were actually made in 1935?

A. Well, I will try, but I don't know whether I will be able to ascertain that by that time.

Q. I would like to refer you to a series of drawings which were secured by the defendants from the files of the Parker Appliance Company, this particular series being drawings related to the No. 6 size. Will you thumb through them, Mr. Wolfram, and tell me whether any of these could be used by you in checking the dimensions appearing on the drawings first referred to in order to determine exactly what the dimensions were which were used in the manufacture of fittings [903] in 1935?

A. I don't think that I could tell from these drawings, because they are all dated later than 1935, and I can't tell from them whether or not changes had been made in the shop production drawings from 1935 to the date of these drawings.

Q. Who in the Parker Appliance Company could tell us exactly what the dimensions were which were used on 6 size of the fittings made in 1935?

A. Well, I assume that someone that is connected with the engineering department at the present time that handles drawings might be able to trace that back.

Q. Will you give us the name of some individual, please, that we can rely upon?

(Testimony of John N. Wolfram.)

A. Well, I think that Leland Schmohl might be able to do that.

Q. And his address is what?

A. Well, he is in the Cleveland plant and he lives in Cleveland. I don't know his exact residential address.

Q. Will you tell us, if you know, Mr. Wolfram, what drawings should be asked for in order for us to determine precisely the dimensions of the No. 6 size fittings which were made in 1935?

A. Well, I should think that you should ask for the drawings in just about the manner you have stated, the shop [904] drawings for that particular time.

Q. Do you have such shop drawings or copies of them with you in California?

A. Not that I know of.

Mr. Freeman: If you want to introduce any of the drawings you have received from the Parker Company, it is perfectly agreeable with us.

Mr. Beehler: Those which we have introduced are the only ones which we care to introduce.

That's all, Mr. Wolfram.

Mr. Huebner: Do you have any questions?

Mr. Freeman: No.

(Witness excused.)

Mr. Huebner: Your Honor, I would like to put into the record the case which I referred to very early in the trial. I am not going to quote from it, but I want to cite it to show our position on the

point that a renewed application, such as the Parker patent in suit involves, which contained claims to additional matter over that originally allowed avoids the entire patent. The case is *In Re Kaisling*. It was in the Court of Customs and Patent Appeals, reported at 44 Fed. (2d) 863.

Earlier in the trial, I offered certain pamphlets, which were marked for identification as Exhibits F and G, and they were refused admission at that time for the purpose for which [905] they were then to be offered. Those pamphlets do, however, illustrate certain prior art fittings and have reference to them in the text, and I therefore again offer as exhibits Exhibits F and G for identification.

The Court: May I see F and G?

Mr. Huebner: I think both of them are Parker bulletins.

The Court: Do you have any objection, Mr. Freeman?

Mr. Freeman: No. If he is talking about any prior art and it happens to be a bulletin put out by the Parker Company, we will certainly let them go in.

The Court: They may be received.

(The documents referred to were received in evidence and marked Defendants' Exhibits F and G.)

Mr. Huebner: Now, your Honor, in the license agreements which have been admitted in evidence,

reference is made to the license extending to improvement patents. I have therefore selected and I am now going to offer in evidence a group of Parker improvement patents in order to complete the subject matter of the exhibit.

These patents which I will offer, each one shows on its face that it is asserted to be an improvement over Parker patent 1,893,442, and one of them is also said to be an improvement over Parker 1,977,240. The ones which I will offer are Parker 2,191,582.

The Clerk: That will be Exhibit CCC. [906]

Mr. Huebner: Parker 2,251,715.

The Clerk: Exhibit DDD.

Mr. Huebner: Parker 2,278,479.

The Clerk: Exhibit EEE.

Mr. Huebner: Parker 2,289,382.

The Clerk: FFF.

Mr. Huebner: Parker 2,290,890.

The Clerk: GGG.

Mr. Huebner: Parker 2,316,711.

The Clerk: HHH.

Mr. Huebner: Mr. Wagner, will you take the stand?

The Court: Those may be received in evidence.

(The patents referred to were received in evidence and marked Defendants' Exhibits CCC, DDD, EEE, FFF, GGG, and HHH.)

Mr. Huebner: Mr. Wagner is being called under Rule 43b.

CHARLES H. WAGNER

called as a witness on behalf of the defendants under Rule 43b, having been previously duly sworn, was examined and testified as follows:

Direct Examination

By Mr. Huebner:

Q. Mr. Wagner, I direct your attention to certain Parker drawings which I believe are not now in evidence. The [907] first one is 11-1137-2, the second one is MS 1034, and the third one is MS 1030. I call your attention to a statement in the lower right-hand corner of each of these drawings, reading as follows: "Patent Notice. The part or parts manufactured to this drawing are protected by one or more of the following United States patents: 1,619,755, 1,893,442, 2,212,183."

The first drawing which I identified illustrates a sleeve, does it not? A. Yes.

Q. And the second drawing also illustrates a sleeve? A. Yes. That is 1034.

Q. 1034. I am speaking of the order in which I referred to them. A. Yes.

Q. And the third in order referred to illustrates a nut, is that right? A. Yes.

Mr. Huebner: I would like to have these received in evidence, your Honor, in the order in which I introduced them.

The Court: They may be received. May I ask you a question?

Mr. Huebner: Yes.

(Testimony of Charles H. Wagner.)

The Court: I understood there was no patent upon the nut. [908]

Mr. Huebner: That is one of the reasons why I am offering these, your Honor. There is no patent on the nut and yet here is a patent notice. I will develop that. I also want to find out, and I want to show to the court what this earlier patent shows. We have here several questions that can be predicated upon this—— [909]

The Court: Let me see that last one, will you?

(Document handed to the court.)

The Court: They may be received in evidence.

The Clerk: III, JJJ and KKK.

(The charts referred to were marked Defendants' Exhibits III, JJJ and KKK, and were received in evidence.)

The Court: Mr. Huebner, I wonder if I would ask you a question.

Supposing it appears that the Parker Company was claiming a patent upon the nut, when in reality there was no patent in existence, would that in any way affect the patent upon the sleeve?

Mr. Huebner: It would affect their standing in court on the doctrine of unclean hands. It is a misrepresentation to the public, to our customers, to everybody who is involved. That is just one of the points involved.

The Court: Do you mean to say if they claimed a patent upon something for which they do not have a patent, that that places them in the category

(Testimony of Charles H. Wagner.)

of unclean hands as far as all the rest of the stuff they make?

Mr. Huebner: Yes, when they publish a thing like that it is a misrepresentation.

The Court: Mr. Freeman, do you agree?

Mr. Freeman: No, sir. I don't know yet whether or not [910] these prints were bound together and taken out of a complete folder, or were they individually distributed. I want to reserve any answer until I know what the facts are. It would make a lot of difference whether you take out one sheet out of forty. You have to look at them collectively. It is like reading one paragraph out of a letter.

The Court: I can understand very readily that where you claim a patent upon a nut, and you don't have a patent, that it might affect a law suit involving the nut. But where we have a law suit involving a sleeve, claiming a patent upon a nut, I don't know whether the rule goes that far or not.

Mr. Huebner: That is only one of the points. There is another one I will develop in just a moment.

The Court: All right. Excuse me for breaking in.

Mr. Freeman: I want to ask another question. Do you have a similar one like this for the body?

Mr. Huebner: I didn't locate it. We may have somewhere. I have no objection to producing it if we have it, but I don't know where it is.

Before any further questions, I will offer in evi-

(Testimony of Charles H. Wagner.)

dence a copy of the Parker patent 1,619,755, which is one of the patents referred to in the immediately preceding exhibits.

The Court: It may be received.

The Clerk: LLL. [911]

(The document referred to was marked Defendants' Exhibit LLL, and was received in evidence.)

The Court: Evidently, Mr. Huebner, Mr. Freeman would like to look at these exhibits, so I think we will take our morning recess now. We will recess until 10 minutes after eleven.

Mr. Huebner: Very well, your Honor.

(A recess was taken.)

Mr. Freeman: I think we found the missing print, your Honor.

Q. (By Mr. Huebner): I direct your attention to another Parker print, 11-1137-12, and ask that you identify that as a Parker print.

A. If it has the Parker name on it it must be a Parker print.

Q. You examine it. A. Yes.

Mr. Huebner: I offer that in evidence, your Honor.

The Court: It may be received.

The Clerk: MMM.

(The print referred to was marked Defendants' Exhibit MMM, and was received in evidence.)

(Testimony of Charles H. Wagner.)

Q. (By Mr. Huebner): Exhibit MMM illustrates and gives dimensions for a body, does it not?

A. It says Triple Coupling FT [912] Dimensions.

Q. Doesn't it illustrate the body?

A. That appears to be a body, yes.

The Court: Is the same printing upon that print relative to the patent?

Mr. Huebner: It is a little different and is even more pertinent. I will read the information.

Q. (By Mr. Huebner): I call your attention to the patent notice down in the lower right-hand corner.

“The part or parts manufactured to this drawing are protected by U. S. patent No. 1,893,442 and No. 2,212,183.”

I also call your attention to the fact that the drawing bears a notation “Issued 1-29-40, Reprinted September 26, 1942.”

The last one, your Honor, omits a reference to the Parker patent 1,619,755, but it says parts such as this body are protected by both the early patent 1,893,442 and the patent which is in suit.

Directing your attention to the other exhibits, III, JJJ and KKK, I call your attention to the dates, III issued 11-11-37, reprinted 2-11-34, JJJ issued 4-1-44, reprinted 9-20-44——

A. That was issued in '41.

Q. Issued in 1941 and reprinted in 1944, and KKK was issued on November 11, 1937, and reprinted January 15, 1946. So far as you know are

(Testimony of Charles H. Wagner.)

those dates which appear on the drawings [913] the dates upon which respectively those drawings were issued and then reprinted?

A. If they appear on there, I would assume that those are the dates that they were reissued and reprinted.

Mr. Freeman: I don't question any of the dates appearing on them, or any of the data thereon. They were taken from our files, and we will concede that whatever they show they show.

Mr. Huebner: With that in mind, your Honor, I will refer to the second purpose for which these drawings are introduced, and that is to substantiate our allegation in the counter-claim that there has been a controversy between the plaintiff and the defendants here as to possible infringement of certain other patents, including specifically 1,893,442, there being in these drawings a representation to the public that certain parts are covered by this other patent which is one that we referred to in the counterclaim.

The Court: Now, Mr. Huebner, may I ask you a question? When you say "controversy," have you ever had any argument with the Parker Company relative to these drawings, or these patents, or is it just a controversy in name only?

Mr. Huebner: No; we have had notification from the Parker Company that they own the patent in suit and certain other patents without specific name in the correspondence.

The Court: Did they ever notify you that they owned the [914] patent upon the nut?

(Testimony of Charles H. Wagner.)

Mr. Huebner: Not in that language, no, your Honor.

The Court: Well, the only controversy, then, is that printing appeared upon these prints in which they claimed that they were covered by the patents?

Mr. Huebner: No, there is a little more than that. There is further controversy in that the patent in suit says that it is an improvement upon two earlier patents, including 1,893,442. And ordinarily an improvement is considered to be dominated by an earlier presumably broader patent. That is one point in addition. Furthermore, the licenses which are in evidence and which have been granted to Weatherhead and the two local concerns, they also include not only the patent in suit, but additional patents, including 1,893,442; so that if you take the whole picture together you have the Parker Company representing to the public, to us as defendants, to everybody who may have any interest whatever, that they have these patents, including 1,893,442, and that that particular patent, as well as others, is infringed by certain fitting structures that we have been manufacturing. [915]

Q. (By Mr. Huebner): Mr. Wagner, were you present in court on the first day of the trial when Mr. Freeman, attorney for Parker Appliance, made the following statement on page 34 of the record:

“I am very happy to make that statement now, that we do not charge them——”

And he was referring to the two defendants here,

(Testimony of Charles H. Wagner.)

“do not charge them to have infringed or that they are infringing, and we will not assert either of those two patents set up in your counterclaim from now on out. You are as free as all outdoors to do as you want.

“Mr. Huebner: Against the defendants?

“Mr. Freeman: The defendants and their customers. You can go as far as you want.”

Did you hear that statement by your counsel?

A. Yes.

Q. And as an officer of the Parker Appliance Company, do you at this time ratify and confirm that admission and that stipulation?

Mr. Freeman: I think that is absolutely immaterial. As far as I am concerned, I stand here representing Parker, and any statement that I make Parker is bound by.

The Court: That is my understanding.

Mr. Freeman: I think we are wasting a lot of time on [916] nothing.

The Court: That is my understanding.

Mr. Freeman: I am an officer of this court and I represent the Parker Company and I speak for Parker.

The Court: He represents the company and he speaks for his client, and his stipulation in court is certainly binding in this court.

Mr. Huebner: If that is so, your Honor, I will accept it with that, but I ran across a case or two where the client wouldn't ratify what counsel had

(Testimony of Charles H. Wagner.)

done, and there was quite a bit of trouble afterwards.

The Court: We can clear it up. Is there any dispute between you and your counsel in regard to this matter?

The Witness: None, your Honor.

The Court: All right.

Mr. Huebner: That's all.

Mr. Freeman: That's all. Well, I am going to ask one question, Mr. Huebner. I would like to have you tell the court where these four prints that you have introduced, comprising two prints of two different sleeves and a print of a nut and a print of a body, came from. Were they taken from a book? They appear to be from a looseleaf book.

Mr. Huebner: I will refer to Mr. Beehler, who first obtained these drawings. Do you know, Mr. Beehler?

Mr. Beehler: Those were among the drawings which were [917] secured from the Parker Company upon an examination of their files on a court order. Where else the drawings may appear, I do not know.

Mr. Freeman: Is there any one of the defendants who has ever seen any of these drawings other than in the Parker Company files at Cleveland, Ohio?

Mr. Huebner: Mr. Masters says he has, so if you want to call him, or if there is any question about it——

(Testimony of Charles H. Wagner.)

Mr. Freeman: I just want to know where these drawings originated from.

The Court: I think it might be very important, Mr. Huebner. Supposing they claimed a patent, but they never published it? You will have to show, I think, it was published in some way.

Mr. Huebner: May I then ask Mr. Wagner two or three other questions?

The Court: Yes.

Q. (By Mr. Huebner): Mr. Wagner, these drawings before you, Exhibits III, JJJ, KKK, and MMM, do you know for what purpose they were prepared by the Parker Company?

A. As far as I know, Mr. Huebner, those were dimensional sheets that were put out in our shop in sets for manufacture of our product in Cleveland.

Q. Aren't they also inspection sheets?

A. That I don't know of my own knowledge. I must say, [918] as far as I know, they were called dimension sheets. They were racked up in part of the machines, sets of them, so that the machinists could make the fittings.

The Court: May I ask a question? Do you know whether or not any of these prints were ever given to any outsiders?

The Witness: Of my own knowledge, no, your Honor. They were not meant for publication outside, but I don't know whether they went to other people or not.

Q. (By Mr. Huebner): Isn't it true that dupli-

(Testimony of Charles H. Wagner.)

ates of these sheets were sent to outsiders for inspection purposes, and also to aid them in manufacturing the parts illustrated?

A. I don't believe so, Mr. Huebner. Of my own knowledge, I don't know, but I would say this, I would imagine, knowing my former president, Mr. Parker, who just didn't like to have drawings out, we probably had a different set for subcontractor inspection purposes. However, that has never been my particular prerogative in the company, and I just don't know.

Q. Then of whom may we inquire who would know the facts?

A. Oh, I imagine Mr. Lee Schmohl of Cleveland might know whether they were sent out or not.

Q. That is the same gentleman referred to a while ago? [919] A. Yes.

Q. And he is the only one you know of who could give us that information?

A. I think so at the present time, Mr. Huebner.

Q. Is there no one in your Los Angeles, California, office who would have that information?

A. No.

Mr. Huebner: That's all for the moment. We may ask you before court adjourns if you will contact Mr. Schmohl, but for the present we will not make such a request. There are no other questions at this time.

Mr. Freeman: That's all. Do the defendants rest?

Mr. Huebner: No.

The Court: That's all for this witness.

(Witness excused.)

Mr. Beehler: Mr. Masters, will you again take the stand, please?

IRVIN W. MASTERS

recalled as a witness on behalf of the defendants, having been previously duly sworn, resumed the stand and testified further as follows:

Direct Examination

By Mr. Beehler:

Q. Mr. Masters, I believe you on Saturday, May 7, in company with your counsel, visited the offices of the Parker [920] Appliance Company and there examined files of drawings. Is that correct?

A. That's right.

Q. What were the drawings that you asked to have given to you for examination?

A. We requested the drawings that were set forth in the court order to the Parker Appliance Company, namely, sets of drawings consisting of the body, the nut, and the sleeve, for various sizes that were manufactured in commercial quantities at different dates from 1930 down to that date.

Q. What were the particular sizes that you examined?

A. We took particular note of the four size, the six size, the eight size, and the 12 size sleeves and nuts and bodies. We obtained some drawings of other sizes, but the six, eight, and 12 sizes were particularly noted.

(Testimony of Irvin W. Masters.)

Q. Among the drawings which you examined, what drawings did you find which indicated the dimensions of the body, nut, and sleeve of the Parker three-piece fittings which were made in 1935?

A. The drawings which we obtained referred to as working drawings or shop drawings, being drawings of a single part in a single size, had all been changed many times and brought down to date, so it was necessary for us to have the tabulated charts of a particular date to ascertain the dimensions used on those dates, and in 1935, drawings 2-1835, drawing [921] 2-1835-1, and drawing 2-1835-2, were offered us as showing the dimensions employed in making the fittings in 1935.

That rendered it unnecessary for us to dig back through the change notices to ferret out the original dimensions.

Q. Were there any drawings other than those that you mentioned which were among the drawings shown to you which would show the dimensions of the body, nut, and sleeve as manufactured in 1935, or were those the only ones?

A. Those just mentioned are the only ones that I now recall. The others were working drawings which had been changed and brought down to [922] date.

Q. And you examined all of the drawings which were shown to you in those sizes that you mentioned, is that correct? A. I did, yes.

Q. Now, referring, Mr. Masters, to the other

(Testimony of Irvin W. Masters.)

drawings presented a few moments ago, Exhibits III, JJJ, KKK and MMM, did you at any time, outside of the Parker Appliance Company, see drawings like that?

A. Yes, I saw drawings like that not of that particular date, but they were charts showing the dimensions of the body and nut and the sleeve, a chart showing all of the dimensions of the body, one drawing, and another drawing showing all the dimensions of the different sizes of sleeves, and another chart showing all the dimensions of the different sizes of nuts. The first ones that I saw were those given to the Flex-O-Tube Company in 1938, '39 and '40.

Q. You were working for the Flex-O-Tube Company then?

A. That's right. And there were many discussions about negotiation of a license agreement. Flex-O-Tube Company was making hose assemblies with this type of fitting on the end, and anticipating such an agreement, which was never consummated, the drawings were supplied to Flex-O-Tube Company.

Q. Were drawings corresponding to those supplied to anybody else that you know? [923]

A. Yes.

The Court: May I ask the witness a question at this point? On these drawings did you notice whether there was anything said about the drawings being covered by a patent?

The Witness: Yes, your Honor, I recall that distinctly, and I believe that I have, maybe, in this

(Testimony of Irvin W. Masters.)

court room such a drawing in my possession. I do at my shop if I don't have it here.

Answering your question, Mr. Beehler, I couldn't testify definitely as to whom else they were supplied to. I saw them at the industry conferences at Dayton during the war.

Q. (By Mr. Beehler): That was about what year? A. 1943, '44, I believe.

If I may further respond to the judge's question. Mr. Lyon's whispering out here set me off.

Those would not be the same notations, of course, in '39 because some of those patents, the last patent mentioned was not yet issued.

Mr. Freeman: That is, the patent in suit had not yet issued?

The Witness: That's right.

The Court: But you do remember that there was something on the drawings which indicated that the subject-matter was covered by a patent?

The Witness: Yes, I do. [924]

I think in a few minutes I can produce it.

Mr. Beehler: That is all, Mr. Masters. The defendant rests. Excuse me, Mr. Freeman. You may have the witness.

Cross-Examination

By Mr. Freeman:

Q. Mr. Masters, just so the record is straight, you don't recall the detailed wording of any of the **wording that you saw at the Flex-O-Glass Company?** A. Flex-O-Tube?

(Testimony of Irvin W. Masters.)

Q. Yes.

A. Except that general statement that parts therein described are covered by patents No. Umpty-ump, whatever it was.

Q. Were those prints in a folder or were they in book form, or were they separate sheets, or do you recall?

A. They were mailed to us as charts.

Q. Single charts or multiple charts?

A. We were principally interested in two things, the shape and size of the dimensions of the sleeve and the nut, because we were putting swivel assemblies on the end of hoses.

Q. When was that negotiation carried on?

A. Well, I believe that that was—let me refresh my memory from the letter here. I have here a copy of one letter to Flex-O-Tube Company, December 2, 1938, and I just [925] noted in my files the other day a letter from Mr. Bigelow in 1940 after I came to the Coast—I came to the Coast in November of '39—and Bigelow supplied me some drawings subsequent to that.

Q. So that your negotiations, or at least the Flex-O-Tube Company, was carried on prior to the filing of the present Parker patent in suit?

A. No. I think that filing was——

Q. I think you said January, 1938.

A. December, '38.

Q. The patent was filed March 2, 1938. Do you recall whether or not in the charts there was any

(Testimony of Irvin W. Masters.)

representation of the angle on the sleeve, outside angle on the sleeve?

A. No, I don't recall that.

Q. Do you know as a fact that the angle on the sleeve was incorporated sometime after December of 1939? A. That's right.

Q. Mr. Masters, it is not at all unusual to make changes in drawings from time to time, that is, production drawings? A. Oh, no.

Q. That is standard practice?

A. That's right.

Q. When they make a change they just make a little notation with a change-order to show that the change has been [926] made as of a given date?

A. That's right.

Q. So that a drawing that may bear the date 1938 may have features incorporated therein as late as, say, 1942 or '44, if the print is made after 1944?

A. I am sorry, I don't quite follow that.

Q. In other words, the original date of the making of a drawing is not the determining date when that specific drawing was actually put out, if it has a change-order with the date of the change-order subsequent to the original date on the drawing? Do you follow me?

A. Well, I think I do, but let me state that drawings customarily carry the original date of issue, and any changes, if any, are indicated on the drawing. It may be change A, B, C, D, or numbered, or simply the dates of the change. And if I understand your question correctly, the condition of the

(Testimony of Irvin W. Masters.)

drawing as you look at it with the changes may not be the original condition of the drawing.

Mr. Freeman: That is all.

Redirect Examination

By Mr. Beehler:

Q. Mr. Masters, I refer you to Defendants' Exhibits I, J, and K, drawings No. 811T, 811BT and 811FT, and ask you whether or not drawings of that kind were found by you in general [927] circulation? A. Yes.

Q. Where did you see such drawings?

A. I believe that I did not see such drawings as this until the middle of the war, possibly '43, and at the various meetings at Dayton when I first saw them.

Q. Did you see them elsewhere, too, besides in Dayton?

A. Well, a set was obtained by us in connection with those meetings, and then we ran into some dimensional conflicts, and we were advised to get a set of drawings directly from Parker, and I requested them of Mr. Amon, and he forwarded them to me.

Q. And those were drawings like those which you now hold in your hand?

A. That is correct.

Q. And those are drawings like Defendants' Exhibits I, J and K?

(Testimony of Irvin W. Masters.)

A. Well, I don't recognize those exhibits numbers. These that you just handed to me.

Q. For the record, those are the numbers of the exhibits you hold in your hand?

A. They are.

The Court: I notice on some of the exhibits for the nut, the body, and the sleeve, that they also have: protected by U. S. letters patent numbers so-and-so.

Mr. Beehler: That, your Honor, was the purpose of [928] calling attention to the general distribution of these drawings.

The Court: This patent No. 1,893,442, which one is that?

Mr. Beehler: That is one of the patents which was set forth in the counter-claim.

No further questions.

Recross-Examination

By Mr. Freeman:

Q. When you received those drawings, you received them in the form of a set, that is, the nut, body and sleeve; correct?

A. I believe so, along with other drawings.

Q. But my question was, you received the three drawings that have just been referred to in the form of a set comprising a nut, body, and sleeve, is that right?

A. I believe that is correct, Mr. Freeman.

Mr. Freeman: That is all. [929]

Mr. Beehler: The defendant rests, except reserving the right to introduce such additional drawings as we may find pertinent to this discussion before the case closes.

The Court: Mr. Freeman, how much time are you going to require now to complete your case?

Mr. Freeman: I am not going to take very much time. We have three rather short outside witnesses, and we have a little of rebuttal on the part of Mr. Wolfram.

The Court: Will there be any question about cleaning it up this afternoon?

Mr. Freeman: I think we can almost clean up this afternoon, your Honor. I almost hesitate to say this, but I think we can push it. We can clean up one witness before lunch. He is here available.

The Court: Call your witness.

Mr. Freeman: Mr. Murphy.

FRANK MURPHY

called as a witness in rebuttal on behalf of the plaintiff, being first duly sworn, was examined and testified as follows:

The Clerk: Your name, please?

The Witness: Frank Murphy.

Direct Examination

By Mr. Freeman:

Q. Mr. Murphy, you are employed by the Douglas [930] Aircraft Corporation of Santa Monica, California? A. That is right.

(Testimony of Frank Murphy.)

Q. That is the same company by whom Harold Adams is employed? A. Correct.

Q. I understand that you are in the hydraulics and landing gear section as an engineer.

A. That is correct.

Q. Will you tell us when you first entered the employ of Douglas? A. In 1933.

Q. You are a graduate aeronautical engineer?

A. Yes.

Q. From what school did you graduate?

A. University of Minnesota.

Q. When you first entered the employ of Douglas, what were your duties?

A. You mean when I first entered Douglas?

Q. Yes.

A. I worked at various things. I worked in blueprints, went to material release, and I spent a year and a half going through shop training, through the school engineering training.

Q. In other words, adapting yourself for the work that was to follow? [931]

A. That's right.

Q. When did you get into the hydraulics section as an engineer at Douglas?

A. Oh, I would say about, I don't know exactly, '37, '38, probably around '38.

Q. Since that time, have you gone along in the hydraulics section?

A. I have been there ever since, yes.

Q. I take it that in hydraulics you have worked

(Testimony of Frank Murphy.)

on landing gear and on mechanisms that are hydraulically operated? A. Correct.

Q. Are you familiar with fittings?

A. Yes.

Q. Tube couplings?

A. Tube couplings, yes.

Q. When you first entered the employ of Douglas, do you recall the type or kind of fitting that was then used?

A. The first fittings we were using at that time were 810 type fittings.

Q. That is the two-piece type?

A. The two-piece type, yes.

Q. Do you recall about when Douglas went over to the three-piece type?

A. Well, we went over on the C-47's. I don't know [932] whether they changed on the later B-18's or not, but I know on the C-47's we converted to the triple type.

Q. At that time you went over to the 811?

A. We went over to the 811 on the C-47's.

Q. And that is a three-piece fitting?

A. That is a three-piece fitting.

Q. Are you familiar with the present AN fitting? A. Yes.

Q. And are you familiar with the outside angle on the sleeve?

A. Yes, the tapered angle on the sleeve.

Q. You say the tapered angle on the sleeve. You have reference to the inclined wall portion of the sleeve itself; correct? A. That is right.

(Testimony of Frank Murphy.)

Q. And you are now looking at Defendants' Exhibit O? A. Yes.

Q. In that particular case, the space between the sleeve and the nut within the region or closely adjacent the region of shoulder contact between the nut and the sleeve is in closer relationship than at the toe of the sleeve and nut; correct?

A. Correct.

Q. In your opinion as a hydraulics engineer working in that particular field, does that angle provide any [933] advantage to the overall coupling?

A. Well, performancewise, I think it does, in that it gives you a better chance for disengagement of the nut from the sleeve when you are uncoupling, so you can take advantage of the triple type connection.

Q. In other words, there is less likelihood of the sleeve jamming in the nut?

A. There is less likelihood of the nut and the sleeve jamming together and becoming one unit and having to be removed and pushed back together.

Q. Is that a disadvantage, to have to remove the two parts together?

A. Yes, it is a disadvantage and it has been a requirement actually that they should be able to be disengaged together so you can inspect underneath the sleeve and underneath the nut.

Q. In other words, it is desirable that they can be disengaged or spaced apart so that you can visually inspect both the sleeve and the nut?

(Testimony of Frank Murphy.)

A. On disengagement, yes.

Q. And I understand in actual installation, you do assemble and disassemble the couplings many times?

A. Normally, yes, you would disassemble a number of times, depending on the number of times you would remove units. Some particular couplings at a particular point in [934] the system may be assembled once and stay that way, but in other parts of the system, you might pull it down quite a number of times.

Q. And in the provision of the outside sleeve angle, the lower end or the nose end of the sleeve may expand a greater distance without necessarily galling or coming in contact with the nut; correct?

A. Well, naturally by design it would have to expand more before it locked into the nut.

Q. So that there is room for the necessary expansion without necessarily galling or binding on the nut?

A. Well, I think it is more so that when you take the load itself it tends to flare it back against the nut as a back-up so it will provide disengagement, so it will disengage over the threads without locking in the threads.

Q. So when you disengage the nut and remove the parts, the sleeve will then, let us say, collapse or move inwards?

A. That's right. It will move inwardly to its original position provided you have not exceeded

(Testimony of Frank Murphy.)

the yield point of the materials so they are stretched beyond the elastic limit.

Q. So, initially, the sleeve expands somewhat to bring about a proper seal? A. Yes.

Q. And yet when you remove the nut, it springs back, [935] using that expression?

A. Provided you haven't exceeded the elastic limit of the material so it has taken a permanent set.

Q. In so doing, then, you can remove the nut without necessarily engaging or pulling the sleeve along with it? A. Yes.

Q. And that is the type of fitting now used by Douglas?

A. At the present time we are using the AN type as shown here.

Mr. Freeman: That's all. You may cross-examine.

Cross-Examination

By Mr. Beehler:

Q. Mr. Murphy, what advantage is there in a sleeve having an outside sleeve head and angle of the type shown there in Exhibit O over a sleeve which would have a cylindrical outside and sufficient clearance to clear the inside of the nut?

A. The main advantage to this, as far as I can see, is for disengagement and it does give you an entry angle to clear your threads. We have had cases where threads have run down even further

(Testimony of Frank Murphy.)

than shown in this illustration, where they haven't necessarily stopped before the sleeve comes down there, and have the sleeve Brinell into the threads, and you couldn't get the sleeve out at all.

Q. Wouldn't you have the same advantage if you had a [936] cylindrical exterior on the sleeve and the same clearance as you had at the toe end of the sleeve head?

A. It depends on the amount of clearance you can have and how much you want the nut to back up the sleeve when you load it up. In other words, if you have too much clearance, the sleeve will take all the load when you torque it up.

Q. Supposing you had just as much clearance on a cylindrical sleeve as on that one before you, Exhibit O, at the place where the clearance is greatest?

A. As shown here all the way along?

Q. Yes.

A. It is possible it would work, but I think it would be more desirable to have the clearance angle or chamfer angle to provide for pulling back the nut.

Q. How would the angle provide that in a way which the straight cylindrical exterior would not?

A. Well, because a burr is being thrown up, and it gives you more of a chance to pull it back than if you wouldn't have the clearance angle.

Q. The burring is being thrown out where?

A. On threads and all the fitting on down.

Q. Do you not have the same clearance in each event?

(Testimony of Frank Murphy.)

A. No, because this will give you more clearance on the entry point to pull back the [937] combination.

Q. Assuming on a cylindrical exterior we have just as much clearance throughout the entire length.

A. Actually, you can design it, if you want to, so you have a great deal more clearance than here the whole way, and then the sleeve will take the whole load, but if you have too much, the sleeve will take all of it and the nut will not take the radial expansion load due to your torquing together with the tensile stress.

Q. Does the nut take some of the radial expansion? A. Yes.

Q. How do you know that?

A. The sleeve will expand and be backed up by the nut. [938]

Q. Did you ever examine a made-up fitting to determine whether or not that was true?

A. I am sure we have had cut-aways made which showed that.

Q. Did you ever examine it and measure it, yourself?

A. Well, I never measured it. I am sure you have metal-to-metal contact.

Q. Are you assuming that, or do you know that to be true from your own observation?

A. I would say it would be true from my own observation in the past.

Q. How did you determine that?

A. Visually on cut sections.

(Testimony of Frank Murphy.)

Q. On cut sections? A. Yes.

Q. Is there any hoop tension in the sleeve head on a cut section?

A. We had them torqued up, I would say out there, and I am sure we have tension in the nut. We have had nuts split on us where you overtorque them too much.

Q. How can you have hoop tension in a sleeve head if it was cut away in section?

A. Well, I think the material is being held where it was originally held.

Q. What holds it? What would hold it? [939]

A. Friction.

Q. Friction between what parts?

A. The threads where you have tightened them down on the fitting.

Q. How would that hold tension in the sleeve head?

A. Well, you have jammed your parts down in there, and actually you haven't relieved that part to let it go back up. Actually when you cut your section this part is pulled down (indicating), this is expanded (indicating), and as long as you don't relieve it out by loosening it, it is still being held out in the same place.

Q. What is hoop tension?

A. What is hoop tension?

Q. Yes.

A. Circumferential stress, I would say.

Q. Where do you get circumferential stress in a section of fitting?

(Testimony of Frank Murphy.)

A. By the wedge action as you tighten down on the fitting.

Q. Don't you destroy the circumference when you cut the fitting in half?

A. Yes, but you are still holding it down there and you have expanded it out there.

Q. In your reference, Mr. Murphy, to the expansion of the sleeve head, on your examination of cut sections, is it [940] your observation that the sleeve head expands into contact with the inside of the nut throughout its length?

A. I don't know if it is all throughout its length or not. I am sure the sleeve expands out to the nut.

Mr. Beehler: That is all.

Mr. Freeman: No further redirect.

The Court: We will recess now until 2:00 o'clock.

(Whereupon, at 11:55 o'clock a.m. a recess was taken to 2:00 o'clock p.m. of the same [941] day.)

July 6, 1950—2:00 P.M.

The Clerk: Cause on trial.

Mr. Beehler: Mr. Freeman, I wonder if it wouldn't be better to reopen momentarily for the introduction of two documents which we found over the noon hour?

Mr. Freeman: Proceed.

Mr. Beehler: I will put Mr. Masters on the stand.

IRVIN W. MASTERS

recalled as a witness on behalf of the defendants, being previously duly sworn, resumed the stand and testified further as follows:

Direct Examination

By Mr. Beehler:

Q. Mr. Masters, I show you a document which we will mark Defendants' exhibit next in order, patent drawing No. 11-1138, and bearing the notation in the title block, "Copy No. 44, Issued 11/11/37; name Std. Triple Coupling Ft. Dim."

The Clerk: This will be marked NNN for identification.

(The document referred to was marked Defendants' Exhibit NNN for identification.)

Q. (By Mr. Beehler): Will you tell us, Mr. Masters, where you secured that drawing?

A. I obtained this drawing from the Flex-O-Tube Company [942] at the time I took over their fitting manufacturing obligations. They received it some time in 1939 from the Parker Appliance Company.

Q. Do you recall the circumstances under which they received the drawing at that time?

A. Yes. They were manufacturing hose assemblies with these details on the end, and also were manufacturing fittings with these details to use as adapters.

(Testimony of Irvin W. Masters.)

Q. How was it you personally came into possession of the drawing?

A. The Flex-O-Tube Company turned it over to me by reason of my picking up their obligations to manufacture fittings which they couldn't take care of because they were swamped with other orders, and I started manufacturing fittings out here.

Q. That was about when?

A. That was in 1941.

Mr. Beehler: I offer in evidence as defendants' exhibit NNN the drawing just identified.

The Court: It may be received.

(The document referred to was received in evidence as Defendants' Exhibit NNN.)

Q. (By Mr. Beehler): I show you now, Mr. Masters, a photostat of another drawing, and unfortunately I have only one copy here, bearing notation in the title block, "Size A. [943] Drawing No. 12-1133-3, Revision M," and noted as Engineering Department No. 6T, which I request be marked for identification defendants' exhibit next in order.

The Clerk: OOO for identification.

(The document referred to was marked Defendants' Exhibit OOO for identification.)

Q. (By Mr. Beehler): Do you recall the circumstances under which you received this particular drawing?

A. That was one of the drawings given to us by the Parker Appliance Company when we were at their place on May 7th last year, 1949.

(Testimony of Irvin W. Masters.)

Mr. Beehler: I offer in evidence as Defendants' Exhibit OOO the drawing just referred to and marked for identification.

The Court: It may be received.

(The document referred to was received in evidence as Defendants' Exhibit OOO.)

Mr. Beehler: That's all.

The Court: The defendants rest now?

Mr. Beehler: Yes.

Mr. Freeman: I am going to ask him a question.

Cross-Examination

By Mr. Freeman:

Q. The marking upon Defendants' Exhibit NNN includes a phrase that the print is not to be used for manufacture or [944] reproduction in quantity of the articles or parts disclosed in the print. That is correct, is it not?

A. That is what it says on the print.

Q. And, further, that the print was not to be disclosed to anyone other than an official of the United States government; correct?

A. That is what it says on the print.

Mr. Freeman: That's all. [945]

The Court: Now I assume that we can officially say that the defendant rests?

Mr. Freeman: They have already rested, because Mr. Murphy, who testified just before lunch, was our witness.

Mr. Hosterman, please.

FRED HOSTERMAN

called as a witness by and on behalf of the plaintiff, having been first duly sworn, was examined and testified, in rebuttal, as follows:

The Clerk: State your name, please.

The Witness: Fred Hosterman.

Direct Examination

By Mr. Freeman:

Q. Where do you reside, Mr. Hosterman?

A. Burbank, California.

Q. By whom are you employed?

A. Lockheed Aircraft Corporation.

Q. How long have you been with Lockheed?

A. Since October, 1936.

Q. In what capacity are you presently employed by Lockheed?

A. As a design specialist on hydraulics.

Q. How far back does your hydraulics work go with Lockheed? [946]

A. Early in 1937.

Q. Since that time you have continuously devoted your attention to hydraulics engineering and design?

A. That is correct.

Q. And you went through the hydraulics, engineering and design, all through the war period?

A. Yes, sir.

Q. Are you a graduate aeronautical engineer?

A. Yes, sir, I am.

Q. Of what school?

A. Parks Air College.

Q. That is in East St. Louis?

A. That is correct.

(Testimony of Fred Hosterman.)

Q. You obtained a Bachelor of Science degree in aeronautical engineering? A. Yes.

Q. And Parks College now is part of the St. Louis University? A. That's right.

Q. Can you tell us briefly the uses of hydraulic systems in connection with aircraft? What do they do? What do they perform?

A. Well, hydraulic systems are used as a means of power transmission primarily. That is, they transmit power from some prime mover such as the engine or an electric motor [947] to some mechanism which must be moved under power, such as a landing gear, wing flaps, control surfaces, bombay doors.

Q. Bombay doors, that is part of Army aircraft or Navy aircraft? A. Military aircraft.

Q. When we talk about a hydraulic system for operating bombay doors, does that mean that the doors are controlled from a remote position with respect to the doors themselves?

A. Yes, that's right.

Q. Does that mean that fluid under high pressure is transmitted through tubes from the place of control to the place of operation?

A. That is right.

Q. Do they employ or do you employ fittings for connecting the tubes together or the tubes to the instrumentalities which are operated?

A. We do.

Q. And when you came with the Lockheed Com-

(Testimony of Fred Hosterman.)

pany and entered the hydraulics section of that company what fittings were then used?

A. The 810, two-piece type.

Q. Did your company continue to use the 810, two-piece type, for any great length of time?

A. No; we discontinued the use of the two-piece type fitting on new designs some time during 1937. [948]

Q. And was that upon any government or air force requirement?

A. No; that was done on commercial aircraft, on our own volition.

Q. Was that done because of a better fitting being provided?

A. Yes, we considered the three-piece fitting to be far superior to the two-piece.

Q. Are you familiar with the 811 fitting?

A. Yes, I am.

Q. When you went initially to the three-piece, 811 fitting, the sleeve therein had a wall parallel to the wall of the nut; correct?

A. That is right.

Q. Was that sleeve later on changed in the 811 fitting?

A. Yes, it was changed later to have an angle.

Q. In other words, when you say "have an angle," that is an angle somewhat as is illustrated in the chart that is hanging here in the court room, Defendants' Exhibit O?

A. That is right.

Q. I am going to ask you, your company manufactures a commercial plane under the trade name

(Testimony of Fred Hosterman.)

of Constellation; correct? A. That is right.

Q. And I take it you use fittings in that particular [949] plane? A. That is right.

Q. What kind of fittings do you use?

A. We use the basic 811 type fitting in that airplane.

Q. How about the sleeve?

A. The sleeve is the AN sleeve.

Q. So that we get our period of time correct, initially when you started manufacture of the Constellation you used the 811 fitting?

A. That is correct, that was before the AN fitting was adopted.

Q. When the 811 fitting was changed from a straight wall or a parallel wall sleeve to an inclined wall sleeve, did you then use the 811 fitting with the sleeve having the tapered wall or inclined wall?

A. I can't say definitely when we changed from the straight wall type to the tapered wall type. I am not sure whether that occurred on the Constellation first, or not.

Q. You are certain, though, as of now, that your present fittings used on the Constellation do include the tapered wall on the sleeve?

A. That is right.

Q. Are there any advantages in use of a three-piece fitting over and above a two-piece [950] fitting?

A. Yes, there are quite a number of advantages. First, the three-piece fitting tends to eliminate

(Testimony of Fred Hosterman.)

the shearing action which occurs on the two-piece fitting between the two parts of the fitting when the assembly is made. Secondly, the three-piece fitting has much less engagement between the tube and the body of the fitting, which is a great help in assembly of the tube into the airplane. Also, we are able to make bends closer to the fitting because the nut can slide back around the bend, whereas in the straight fitting in order to disengage it, in the two-piece fitting, in order to disengage it, it is necessary to have a straight section of tube in order to slide the nut in that case back from the body of the fitting. [951]

Q. Are fittings used in what we might call close quarters in airplanes?

A. That is true, particularly in small fighter types, we are very cramped for space, and ease of installation is a great advantage.

Q. Are there a great number of fittings used in the common airplane?

A. Yes, a very large number.

Q. Do they run into the hundreds or may I say even thousands?

A. I have never counted them, but I know you are safe in saying hundreds.

Q. Is there any advantage in the removability of the nut or in engaging or disengaging the parts by providing a sleeve angle on the outside surface of the sleeve head?

A. Yes, there is an advantage. It is very necessary that we be able to slide the nut back along the

(Testimony of Fred Hosterman.)

sleeve when we disengage the fitting. That is one of the advantages which I cited for the three-piece fitting.

Q. Is there any advantage in permitting the nose end of the sleeve to expand a greater distance and yet remain out of contact with the wall of the nut?

A. Yes. That is important for two reasons, which are in a sense related. First, to permit the sleeve to expand, which it must, due to the wedging action, without binding the [952] nut. Also, by having that clearance for expansion, the full torque which is applied to the nut can be better translated into axial force, and therefore achieve a better sealing contact.

Q. Is there any advantage in the nut backing up the sleeve after there has been a certain amount of torque applied?

A. Yes, that is an advantage, because the sleeve definitely does deflect due to the wedging action of the conical surfaces, and it is necessary to have additional support to take the load off of the sleeve.

Q. And that additional load is the backing up of the nut, that is, the nut backing up the sleeve closely adjacent the portion of the nut which engages the shoulder on the sleeve; correct?

A. Yes.

Q. That portion has been referred to as region of contact, and we are both agreed that is the portion between the flange of the nut and the shoulder on the sleeve; correct?

(Testimony of Fred Hosterman.)

A. That is the primary region of contact, yes.

Q. If you didn't have that backing up, might you have a great number of sleeve failures brought about by cracking or over-expanding of the sleeve?

A. I would say that is quite probable.

Q. What has your practice been at the Lockheed plant [953] with sleeves cracking, using the type of sleeve wherein there is the tapered or inclined wall?

A. We have had some cases of sleeve cracking.

Q. But, generally speaking, it hasn't been out of proportion? A. No. That is true.

Q. And do fittings serve an important function; are they required to do a job?

A. Yes, they are certainly one of the most important parts of a hydraulic system.

Q. And when you say the most important part of a hydraulic system, is that because if you happen to have a leaky fitting, you have no hydraulic system? A. That is correct.

Q. And would you say that the angle on the sleeve enables you to over-torque without bringing about a disastrous condition or failure of the fitting?

A. I would say that the angle on the sleeve permits you to use an increased amount of torque as compared with the amount you would be able to apply without the taper on the outside of the sleeve.

Q. And even though you use some increased amount of torque, you can still back the nut away,

(Testimony of Fred Hosterman.)

which is a requirement for service and checking of parts; correct? A. That is correct. [954]

Mr. Freeman: You may cross-examine.

Cross-Examination

By Mr. Beehler:

Q. Mr. Hosterman, you were asked the question about the backing up of the sleeve by the nut. I wonder if you would explain again just what you mean by the backing up of the sleeve by the nut?

A. Well, I think I can best explain that by again using my analogy to a wedge. The nut transfers an axial load to the sleeve and the tube. The taper section of the fitting and sleeve acts as a wedge, which expands the sleeve radially. That expansion is more pronounced at the toe of the sleeve or flare assembly, and that expansion deflects that portion outwardly until if enough torque is applied it will contact the inside diameter of the nut at that point.

Q. Then the backing up that you refer to as taking place in a sleeve, nut, and body assembly of the AN type, takes place at what point with relation to the head of the sleeve?

A. That will depend upon the amount of torque which is applied.

Q. Assume the recommended torque, let us say.

A. I would say that in all probability in most cases the first contact would probably occur at this point (indicating), even though there is an initial clearance there. [955]

(Testimony of Fred Hosterman.)

Q. You mean by "first contact," first contact of the sleeve head with the cylindrical wall of the nut, is that correct?

A. That is correct, due to deflection of the sleeve.

Q. And then you think there might be a later contact, is that true, somewhere else along the sleeve head?

A. Depending upon the amount of torque applied, it would in all probability deflect to the point it would contact along the whole surface. However, that is an extremely over-torqued condition.

Q. Have you ever made any physical measurements of expanded fittings to determine, let us say, what the expansion of the sleeve head might be?

A. I have not made any physical measurements. However, we have taken partial sections of assemblies in which we have noted that condition, that deflection that I spoke of.

Q. Namely, that the deflection is first apparent nearest the nose of the sleeve head?

A. That is correct. That is more pronounced on the 811 sleeve than on the AN, due to the fact that the 811 sleeve has a shorter flange section.

Q. You mentioned in response to Mr. Freeman's questioning that there was an advantage in ease of removability because of the presence of a sleeve head angle, is that correct?

A. That is right. [956]

Q. Assuming, in the case of assembly of Exhibit O, that you had a sleeve head with a cylindrical exterior and that the clearance between the cylindri-

(Testimony of Fred Hosterman.)

cal exterior and the inside of the nut is as large as the clearance between the interior of the nut and the sleeve head in the toe, which is the point of greatest clearance, would there be any difference then in ease of removability between such a sleeve head with a cylindrical exterior and a sleeve head with an angle on the exterior?

A. So far as removability alone is concerned, I would expect no difference.

Mr. Beehler: No further cross.

Redirect Examination

By Mr. Freeman:

Q. I should have asked you this on direct. Have you written any papers, or do you do any editorial work in applied hydraulics?

A. Yes. I have been serving as aviation editor for the magazine *Applied Hydraulics*. [957]

Q. And in that connection your work has been primarily in hydraulics, the editorials all have to do with hydraulics? A. That is right.

Mr. Freeman: That is all.

The Court: Any further questions?

Mr. Beehler: No further questions.

RALPH MIDDLETON

called as a witness by and on behalf of the plaintiff, in rebuttal, having been first duly sworn, was examined and testified as follows:

The Clerk: Please state your name.

The Witness: Ralph Middleton.

Direct Examination

By Mr. Van Sciver:

Q. State where you reside, Mr. Middleton.

A. In North Hollywood.

Q. What is your present occupation?

A. I am presently employed by the Lockheed Aircraft Corporation.

Q. And you are a graduate aeronautical engineer? A. Yes.

Q. From what college did you graduate?

A. University of Michigan.

Q. In what year? [958] A. 1929.

Q. And you received a degree in aeronautical engineering?

A. Bachelor of Science in aeronautical engineering.

Q. After you graduated from that university what did you do?

A. I went to work for the government at Wright Field, for the Army Air Corps at that time.

Q. Is that as a civilian engineer?

A. As a civilian engineer.

Q. How long did you remain at Wright Field?

(Testimony of Ralph Middleton.)

A. I was there until May of 1940.

Q. What was your first position when you went to Wright Field?

A. I went there as an air dynamacist specializing in air dynamics.

Q. How long did you hold that position?

A. Well, it was a little bit indefinite, because actually I practiced air dynamics as such for about between two and three years; however, during that time I received assignments to work on shock struts, landing gear shock struts, and gradually assumed more and more duties in that connection and less and less air dynamics.

Q. What was your next assignment after that?

A. Finally the landing gear division was separated from [959] the air dynamics division and I was given the job as civilian head of the shock strut and landing gear hydraulics work.

Q. Were you in charge of the hydraulic laboratory at Wright Field? A. Yes, I was.

Q. How long did you remain in charge of the laboratory?

A. Until I left Wright Field in 1940.

Q. During the time that you were head of the laboratory and in charge of the landing gear and hydraulics section, did you have any actual experience with fittings for hydraulic tubing?

A. Yes, I did.

Q. Did you actually install such fittings yourself? A. Yes.

Q. Disassemble them? A. I did.

(Testimony of Ralph Middleton.)

Q. Have you actually flown in planes in which hydraulic systems were used?

A. Yes, I have.

Q. What did you do when you left Wright Field?

A. I went to work for the Curtiss-Wright Airplane Corporation in St. Louis; Robertson, Missouri.

Q. How long did you remain with that company? A. One year.

Q. Did you have any occasion to work with hydraulics, [960] tubings, and fittings, when you were with Curtiss-Wright?

A. Yes, I did. I was the landing gear staff engineer and had to design the landing gear and retracting mechanisms, and as such worked directly in co-operation with the hydraulics staff engineer who designed the plumbing and control systems that we used in connection with the landing gear.

Q. What was your next position?

A. I went to Burbank, California, and became chief engineer for the Aircraft Accessories Corporation.

Q. Were you familiar with and did you use aircraft fittings while you were employed by the Aircraft Accessories Corporation? A. Yes.

Q. Do you know the kind of fittings that are in use generally on aircraft at the present time?

A. Yes.

Q. Are you familiar with the AN standard fitting? A. Yes, I am.

(Testimony of Ralph Middleton.)

Q. Also the present AC-811 fitting?

A. Yes.

Q. In the AN fitting used at present is there a sleeve head angle on the external wall of the sleeve as shown in the drawing Defendants' Exhibit O?

A. Yes, there is.

Q. Is there, likewise, a similar angle on the present [961] AC-811 fitting?

A. Yes, there is.

Q. Was there such an angle on the old AC-811 fitting?

A. No. The original AC-811 fitting, which was the first three-piece fitting that was used in the aircraft industry, had a sleeve which had a straight side and actually had more relative clearance between the nut and the sleeve than appears to be shown by that sketch.

Q. In 1930 or '31 at Wright Field are you familiar with the type of fittings that were then used by the Army on aircraft?

A. Yes.

Q. What type of fitting was that?

A. In the beginning or when I first went to work for the government there were no hydraulic mechanisms used on aircraft for retracting landing gear, and the only hydraulic mechanisms that were actually used were in connection with the brakes. Tube fittings at that time were primarily used in the power plant section in connection with the fuel and lubrication sections of the engine, and they were largely of a type which was known then as the cone and union type, which was a kind of a ball-

(Testimony of Ralph Middleton.)

ended male portion that nested into a tapered female portion, and then a nut screwed the two parts together and held the spherical end of the male portion into the tapered end of the female portion. Those two portions [962] were always silver-soldered or brazed onto a copper tube. That assembly was the only one at that time which was actually standardized by the Army and shown in their standard drawings.

Q. As hydraulics systems became more in vogue and more complicated was there a different type fitting used by the Army?

A. Yes. As soon as airplanes got to be a little bit larger and the power plant section got to be larger, then it became necessary to use aluminum tubing, from the weight standpoint, and the old cone and union type of fitting could not be used with aluminum tubing, because it wasn't satisfactory to braze that fitting onto an aluminum tube. So that was when the flared type of fitting began to be used.

Q. Was a two-piece fitting used?

A. A two-piece fitting was used universally at that time.

Q. Is that what was known at that time and now as AC810?

A. It is known now as AC810. However, at that time there was no such designation for it. It was just called the Parker two-piece inverted flare type of fitting.

(Testimony of Ralph Middleton.)

Q. Was that two-piece fitting superseded to any extent while you were still at Wright Field?

A. It was almost—I shouldn't say that. It was superseded [963] to a large extent by the three-piece fitting.

Q. That was known as the Parker type three-piece fitting?

A. Yes. There was a drawing that came out that was put out by the Army shortly after this fitting began to be used, and one was put out for the two-piece fitting and one was put out for the three-piece fitting. One was called AC810 and the other was called AC811.

Q. I think you already stated that the AC811 at that time did not have the external sleeve head angle such as shown in Defendants' Exhibit O?

A. That is correct.

Q. And since you left Wright Field have you been substantially continuously in contact and have had knowledge of aircraft fittings?

A. Yes, except for a period of a couple of years when I went into another business, which was not in aircraft.

Q. Were you ever a member of the SAE A6 Committee? A. Yes, I was.

Q. What year was that?

A. That was from about 1941 until 1945. I guess it was 1942. I don't remember the first year it started. I believe it was 1942 that was the first year that that committee actually held meetings.

Q. Have you actually installed both the old

(Testimony of Ralph Middleton.)

AC811 type [964] fittings and the present AN fittings? A. Yes, I have.

Q. And the present AC811 fittings?

A. Yes, I have.

Q. Do you know the reason for the change from the two-piece inverted seat 810 fitting to the three-piece fitting? A. Yes, pretty well, I believe.

Q. Will you explain those briefly?

A. Well, the old two-piece fitting had a great tendency to twist or swedge off the flare, pinch it off from the end of the tube, because of the friction that existed between the tube and the nut primarily, so that the flare on the end of the tube and the nut itself tended to rotate as one piece as it was tightened. There was another reason, and that was that—well, there were two more reasons. One was that the area bearing between the nut and the flare on the tube was quite small, so that the unit pressure being exerted against the flare on the end of the tube was quite high. Another was ease of installation, because it was impossible to back the nut away from the fitting far enough in many cases where the installation was close in the airplane to get a good installation. If the bend was made close to the fitting the tube had to be inserted down into the fitting, and then the nut had to be slid down over the top of it, and the nut [965] couldn't back around the corner, so obviously there had to be a straight portion sufficient to allow the nut to back away far enough to disengage the fitting.

Q. Do you know if the old AC811 fitting with-

(Testimony of Ralph Middleton.)

out the external sleeve head angle is in general use today, or has that been superseded?

A. I believe it has been pretty well superseded by the later style which conforms to the AN drawings.

Q. How do you know that?

A. Well, because in the first place the government services have so specified for a number of years now. And, secondly, when you buy such fittings it is almost impossible to obtain the older type of fitting, except in war surplus or something of that nature.

Q. From your own personal experience do you know the reason for that change?

A. Yes. We had a particularly marked instance while I was at Wright Field, which I personally believe was quite instrumental in causing that change to occur, and that was on the old P-36 pursuit type of airplane, which was made with stainless steel tubing, the hydraulics system was made with stainless steel tubing, and with steel nuts and steel fittings—steel sleeves, rather, and also steel fittings, which was the first time that the Curtiss Company had ever used steel tubing in connection with their hydraulics systems, [966] and it was discovered after the airplanes were in service that a great number of failures had occurred, in fact, all of the fittings that had been installed in that system were found to be defective due to overtorqueing. It was found that the sleeve due to the reduced friction between the steel sleeve and the steel tube, that the

(Testimony of Ralph Middleton.)

sleeves had all expanded quite readily out until they made contact with the nut, so that the sleeve and the nut turned as one piece. That allowed the nut and sleeve assembly as it was rotated to swedge the flare on the end of the tube back until actually there was no flare left, it became a straight portion of tube just merely held into the straight portion of the sleeve by friction and the amount of stress that remained in the end of the tube. So that after the airplane was in service for a little while, that part blew out due to vibration and repeated loadings and caused a number of cases of forced landing of the airplane. [967]

Q. Do you recall any occasion where planes were actually lost or damaged?

A. Yes, there were several airplanes which actually crashed and the pilots were killed as a result of that, because no one at that time had realized the seriousness of landing gear failure on that particular airplane, with the result that when the pilot tried to make a belly landing, he just wound the airplane up in a ball, and himself along with it.

Q. Were those troubles traced by you personally in conjunction with Curtiss-Wright to the actual fittings?

A. Yes. We conducted a number of tests at Sefridge Field, Michigan, and at Wright Field, and also at the Parker plant in Cleveland at that time to determine the cause of the failure and what to do to correct it. It was determined that several corrective measures should be taken.

(Testimony of Ralph Middleton.)

The most immediate thing that was done was to change the dimensions of the flare itself.

The second thing that was done was to introduce torque wrenches so that the mechanics would be educated not to overtighten the nut.

The third thing that was done was that the Parker Appliance Company agreed to institute a program of tests to determine what changes could be made on the fitting to improve it so that such failures would be largely eliminated in the [968] future.

Q. Is there anything in the external sleeve head angle that you have described that would tend to overcome the failures you have testified to?

A. I believe so. In the first place, with the older type of sleeve, the sleeve itself is a relatively weak member, and that also goes for the present sleeve. Inherently in itself it does not have very much resistance against tensile stress which tends to expand the sleeve radially, so it has to be backed up by the nut itself in order to make it strong enough to withstand normal wrench torques which are applied by mechanics in putting this assembly together.

Since the tapered sleeve first contacts the nut down at the heel of the sleeve, that point of contact helps to reduce the tensile stress in the sleeve itself, which increases the amount of torque that can be applied before the sleeve is overstressed sufficiently to make the whole sleeve come in contact with the nut.

(Testimony of Ralph Middleton.)

Now, since the area of the sleeve that is in contact with the wall of the nut is relatively small to begin with, it can rotate more freely in the nut so that the nut is still free to turn without having to make the sleeve turn for a longer period of time during the tightening.

Q. It is true mechanics do overtorque these fittings? A. Yes, indeed. [969]

Q. Even with torque wrenches?

A. Yes, indeed. As a matter of fact, I don't believe even today torque wrenches are used to any great extent in tightening fittings.

Q. In the old three-piece fitting design, was it relatively easy or relatively hard to jam the nut and the sleeve together?

A. Well, I have taken quite a few of them apart and I would judge that there are very few of those that I have ever taken apart that you actually could back the nut off the sleeve without great difficulty.

Q. And in the present-day fitting, is it less likely that the sleeve and nut will jam?

A. Yes, that is true.

Q. Then it is correct to say that there is an additional safety factor to take care of overtorqueing in the present fitting?

A. There is, yes. Of course, you can overtorque the present fitting, too. It is possible to jam the sleeve in the nut even with the present fitting. It can be done. Anyone can do it with ordinary wrenches, if he feels like doing so. An unskilled

(Testimony of Ralph Middleton.)

mechanic could quite easily do it even with the present fitting.

Q. But there is some additional margin of safety, even though an unskilled mechanic does over-torque? [970] A. Yes, I believe there is.

Q. What happens if the sleeve and the nut do jam in a fitting of this type?

A. Well, several things can happen. In the first place, of course, it makes the whole fitting assembly harder to take off, to disengage for replacement purposes.

In the second place, if you use that same nut and sleeve over again, then you are apt to swedge the flare itself and dangerously thin it due to swedging action.

In the third place, it is possible to groove the flare or put a groove in it, which creates a point of very great hazard due to vibration, fatigue failure.

Q. Is it possible to actually twist the tube during the make-up?

A. Yes, it is. In fact, that was one of the serious difficulties of the old 810 type fitting. The tube itself would be twisted in assembly so that vibration later on could make the whole fitting assembly loosen up.

Q. What would have to be done then?

A. It would just be a case where you would have to go back over the airplane and retighten the fittings, that was all.

(Testimony of Ralph Middleton.)

Q. What would happen if the flare of the tube is swedged or scored?

A. That is a very bad thing to have happen, because [971] that is the weak point in this fitting, actually, is the section which is clamped, the section of the tube which is clamped between the relatively rigid nose of the fitting and the fairly rigid sleeve, which is being held by the nut. The end of the tube is just gripped at that point, so that any vibration on the tube is transmitted down the tube until it is stopped by that connection right there (indicating).

Q. If there is a scoring of the tube and fuel lines, what might happen?

A. Well, the same thing can happen. Of course, you have a much more critical situation in a fuel line because fuel can leak through the joint much more readily, and a leak is much more serious with fuel than with hydraulic fluid. Then you have a rather serious corrosion problem, too.

Q. Have you had any personal experience with couplings in which the flare was scored or swedged?

A. Well, yes, I have seen service failures of that type. In fact, I have been actually subjected to it myself.

Q. Are tubes and fittings of the type here in question used in close quarters in airplanes?

A. Absolutely.

Q. Does that increase the problem of assembly and disassembly?

A. Naturally, it does.

Q. Are there instances where the tube is bent

(Testimony of Ralph Middleton.)

at an [972] angle closely adjacent the flared end?

A. Well, in many cases the bend is made just as close to the end of the tube as it is possible to get it and still install it.

Q. Is it desirable when removing parts that the nut may separate from the sleeve so that it can go around that bend or a bend?

A. It is very desirable.

Q. And for the nut and sleeve to jam, would that be possible? A. No.

Q. Is there any importance to the area of contact between the sleeve and the nut and what we have called the region of shoulder contact?

A. You mean between the nut and the sleeve itself?

Q. The nut and the sleeve itself.

A. Well, yes, because all of the thrust load that is carried by the fitting and tube assembly is carried on that area and naturally if that area is weak, then the whole tube assembly is weak.

Q. Is there any possibility of failure of parts if that area is weak?

A. Yes, there is. In fact, I have seen cases where the whole tube assembly, the sleeve and tube blew right back out through the back end of the nut, where the back end of the [973] nut would bulge outward and allow the whole sleeve and tube assembly to blow out, come right out through the back end of the nut.

Q. Do you know Mr. Ronald Bergh of Republic Aviation? A. Roland Bergh?

(Testimony of Ralph Middleton.)

Q. Roland Bergh, yes. A. Yes, I do.

Q. Do you know him fairly well?

A. Yes, I have known him for quite a few years.

Q. What is your personal opinion of Mr. Bergh as an aircraft engineer?

A. I think he is a very fine one.

Q. Your testimony about the facts concerning fittings, will you tell us how you know those facts over the last 20 years?

A. How is that again, please?

Q. How do you know these facts over the last 20 years?

The Court: I think, before we get into that, we had better take our afternoon recess. We will now recess until 20 minutes after 3:00.

(Recess.) [974]

Mr. Van Sciver: You may cross-examine.

The Court: I think we had better take some more recesses.

Mr. Freeman: I have got to make good my word, your Honor, that we would finish tonight.

Cross-Examination

By Mr. Beehler:

Q. Mr. Middleton, you referred to the manufacture of a P-36 airplane equipped with stainless steel tubing and steel nuts and sleeves, is that correct? A. That's right.

Q. And it was your statement that there were failures in fittings of that plane due to overtorquing?

(Testimony of Ralph Middleton.)

A. That's right. The failures were not in the fitting; the failures were in the tube.

Q. Suppose those fittings had not been overtorqued, wouldn't the fittings have been all right?

A. If the fittings had not been overtorqued they would have been all right, as far as we know. As far as we could determine by test they would have been all right.

Q. You stated, I believe, that that was one of the things which prompted the inclusion of a sleeve-head angle on the sleeve, on the head of the sleeve?

A. I was led to believe that, yes, from statements made by the Parker Appliance Company at that time. [975]

Q. Would the inclusion of a sleeve head angle on the exterior of the sleeve head entirely obviate the defects due to overtorqueing?

A. No, I would not say that entirely it obviated those defects. I believe those defects are to a certain extent present even today in the present fitting.

Q. Would it not be true that you could secure the same advantages if you made the sleeve head cylindrical, still, but gave it somewhat more clearance than those steel sleeve heads originally?

A. No, I don't believe that would be entirely true. In fact, I am quite sure it wouldn't be true.

Q. Why not?

A. Because in the first place the fitting, because of the overall dimensions of the fitting, there isn't

(Testimony of Ralph Middleton.)

very much room for bearing between the nut and the sleeve. If you allowed enough clearance so that the sleeve would be a separate entity and not supported by the nut, then you would lose so much of the bearing area between the nut and the sleeve that the nut would be greatly weakened. Furthermore, the sleeve itself is already a pretty thin and pretty weak member, relatively speaking. Consequently, if you had lots of clearance there, at least with the dimensions of the fittings as we know them, your sleeve might just as well not be a sleeve; you might as well go back to a [976] two-piece fitting because——

Q. When you overtorque a three-piece fitting of the kind there in Exhibit O, what element gives way first?

A. Well, the first thing that happens is that the sleeve starts to bear or rub against the wall of the nut right down there at what you might call the heel, which is the first section which comes in contact at the junction between the nut and the sleeve, it starts to rub right there, that is the first thing that happens.

Q. Actually, isn't it a fact that the metal of the shoulder gives way first before the surface which bears upon the shoulder of the sleeve?

A. The metal of the shoulder?

Q. Yes. A. In the nut, you mean?

Q. In the nut.

A. No, I don't believe so. In fact, I am quite

(Testimony of Ralph Middleton.)

sure that actually the sleeve starts to rub against the nut long before the nut itself starts to fail.

Q. What part of the sleeve starts to rub against the nut?

A. It is that largest diameter of the sleeve that starts to rub first.

Q. Do you mean the exterior circumference?

A. Yes, it starts to rub against the nut. [977]

Q. How do you know that?

A. From actual experience with it. I have taken them apart.

Q. Did you ever take any physical measurements and find out how much the sleeve expanded when overtorqued?

A. No, I can't say that I have. However, I have examined quite a few specimens that have been overtorqued. I don't think in most cases it is possible to take accurate measurements, because so much of the metal has been rubbed off of the sleeve that you can't really measure it accurately. [978]

Q. How did you make your examination?

A. By taking them apart and examining them.

Q. You mean cut-away sections?

A. Not necessarily, no. Just pulled them apart and looked at them.

Q. Then you didn't take any measurements before to see what changes in size there might have been afterwards?

A. Yes. We certainly did quite a bit of that at Wright Field and a lot of the test work that was done in connection with that investigation which

(Testimony of Ralph Middleton.)

I mentioned earlier was by means of taking measurements before and after, and torque wrench measurements also. In fact, the series of such measurements was used as the basis for the requirements for the repair of this particular airplane.

Q. Do you have any of that data with you?

A. I don't have any of that data, not here, no. As a matter of fact, it was such data that was used as the basis for setting up the torque requirements in the present military specifications for hydraulic systems that are used today. They were based on torque measurements that were made at that time.

Q. When you assemble a body, a sleeve, and a nut, made in accordance with Army-Navy specifications, with a tube flare like Army-Navy specifications require, and you couple them up using recommended torque, and screw it tight enough [979] so that some portion or other of the sleeve head hits the inside of the nut, which part hits first?

A. The largest diameter of the sleeve hits first.

Q. Tell us again how you know that?

A. From actually doing it. You can see.

Q. Will you just please describe for us the mechanism, the procedure that you went through in order to determine that?

A. Well, you take a tube——

Q. How did you do it?

A. Well, by taking a tube and taking a nut and a sleeve just selected at random, and making a flare, and miking across the nose of the flare so as to be sure that the flare is made within the required

(Testimony of Ralph Middleton.)

limits, and those limits are such that the nose of the flare must be of a diameter greater than the inside diameter of the tapered portion of the sleeve, and must be less than the inside diameter of the nut, and then just assembling the joint and applying torque in increments, and then after, we will say, 10 increments, after each one of the increments, take it apart and examine the parts.

Q. When did you do that last?

A. Well, that was 1941, between 1940 and 1941.

Q. After the first tightening up, did it expand to fill the nut? A. No. [980]

Q. Did it after the second tightening up?

A. No.

Q. Did it after the fifth tightening up?

A. Yes, I would say about the fifth tightening up would be when it usually occurred.

Q. What torque did you use on the fifth tightening up?

A. Well, that would be something, oh, in the neighborhood of about 25 per cent or so in excess of the recommended torque value, somewhere in that neighborhood.

Q. And when the end of the sleeve head adjacent the shoulder expanded enough to fill the inside of the nut, it is true, is it not, that the toe of the sleeve also had expanded enough to hit the inside of the nut? A. Yes, I believe that is true.

Q. And it is true, is it not, that the mid-portion between the toe and the shoulder had likewise expanded enough to hit the inside of the nut?

(Testimony of Ralph Middleton.)

A. Well, yes. You finally reach a condition where the whole sleeve, the whole area of the sleeve is in contact with the nut, that is true.

Q. And that happens after about five remakes of the coupling?

A. Well, I think you have misunderstood me. My use of the word "increment" did not mean to imply that that meant [981] five assemblies and disassemblies of that coupling. It meant that I increased the amount of torque that was being applied to the nut in increments. The first increment would be something below the recommended torque. The second increment would be a little bit more, and by about the fifth increment we would be up to the recommended torque, and by about the tenth increment, we would be at about double the recommended torque.

Q. Well, isn't it true, also, that as you increased the torque in order to press the sleeve head outwardly, you will get a contact at the nose of the sleeve radially with the inside of the nut before you get a contact at the end of the sleeve head nearest the shoulder? That is true, isn't it?

A. No, I don't believe it is true. I think you get your first contact down there at the heel.

Q. You say, Mr. Middleton, that you believe. What did you find to be the case?

A. That is what I found to be the case, that your first contact there is a rubbing action which can be discerned by marks on the surface.

(Testimony of Ralph Middleton.)

Q. Did you make that measurement with a stop-and-go-gauge?

A. No, just made it by visually examining the surface inside after disassembly. [982]

Q. When you disassembled those couplings, how did you measure the diameter of the inside of the nut?

A. Did not measure the diameter of the inside of the nut at all.

Q. Then you really didn't know what the difference was between the exterior diameter of the sleeve head after expansion and the inside diameter of the nut; that is true, isn't it?

A. That is true.

Q. You mentioned also, Mr. Middleton, that there was an increase in ease in installation of three-piece fittings over the ease of installation of two-piece fittings.

A. That is right.

Q. Isn't it true it is just as easy to install three-piece fittings of the old 811 type, of the kind that were in vogue before the application of the sleeve head angle and the present AC-811 fittings, where the sleeve head angle is installed?

A. Yes, the installation problem is the same in either of those two cases.

Q. And it is substantially the same, also, with the AN fitting, is that not true?

A. That is true.

Mr. Beehler: That is all.

Mr. Van Sciver: That's all, Mr. Middleton.

(Witness excused.) [983]

Mr. Freeman: Mr. Wolfram, will you take the stand.

JOHN N. WOLFRAM

called as a witness on behalf of the plaintiff, in rebuttal, having been previously sworn, resumed the stand and testified as follows:

Direct Examination

By Mr. Freeman:

Q. Do you have the book of patents with you?

A. Yes.

Q. Mr. Adams in connection with his direct testimony referred to the Benzion patent. Will you turn to that patent?

No. 15 in your book, your Honor.

Do you find in that patent any sleeve head angle?

A. No, I don't.

Q. And do you find that the sleeve head shoulder which contacts with the nut is substantially midway along the angular or inside angle of the sleeve itself?

A. Yes, it is substantially midway or even less than midway.

Q. Likewise, the sleeve itself is made on a radius as distinguished from conical; correct?

A. Yes, the inside flare surface of the sleeve is a convex radius. It is a convex surface.

Q. Likewise, the body member referred to by the numeral [984] or character of C has a male member that is on a radius?

A. Yes.

Q. Or arcuate?

(Testimony of John N. Wolfram.)

A. It is a concave surface.

Q. Is there any indication of what we have here referred to as initial or toe contact illustrated in the Benzion patent? A. No, none at all.

Q. Will you next turn to Guyer—No. 4 in your book, your Honor—and do you there find a sleeve head that is tapered or at an angle?

A. No.

Q. And do you likewise find that the shoulder of the sleeve head is substantially midway along the portion of the sleeve which engages the flare of the tube? A. Yes.

Q. I take it that you agree with Mr. Adams that it would be impossible or almost impossible to remove the sleeve due to the ridges or corrugations of the sleeve which imbed in the tubes themselves?

A. Yes, they would imbed so that you couldn't draw the sleeve back off the tube very well without shearing metal.

Q. When you say "shearing" metal, there would be an imbedment or an imbedding of the ribs within the metal and you would have to scrape that metal as you remove the sleeve? [985]

A. That's right.

Q. Incidentally, the Guyer patent was a file wrapper reference in 1,893,442 patent, as well as a file wrapper reference to the Parker 1,977,240 patent, is that correct? A. Yes.

Mr. Huebner: Those, your Honor, are not the patents in suit.

(Testimony of John N. Wolfram.)

Mr. Freeman: The 1,893- patent is the one that Parker refers to in the patent in suit, and also the 1,977,240 patent.

Mr. Huebner: Both of them are referred to in the patent in suit.

Q. (By Mr. Freeman): And the McConnell patent that I am going to ask you to refer to—No. 5 in your book, your Honor,—it, too, was a file wrapper reference against 1,893,442 Parker patent; correct? A. Yes.

Q. I take it that the McConnell patent illustrates a hard metal contact or engagement with a body member on the right-hand side of Figure 1; correct?

A. It is for coupling the hard metal pipe, but there is a gasket, a soft gasket between the pipe and the body.

Q. And that soft gasket is to accomplish what a lead pipe or another soft metal might accomplish between a sleeve and a body?

A. That's correct, the gasket actually provides the seal against the body, and in turn against the outer member, [986] I think that is C'.

Q. Is there any what we have called initial or toe contact illustrated in the McConnell patent?

A. No.

Q. Is there any angle on the sleeve head in the McConnell patent? A. No.

Q. And is it, likewise, true that in the McConnell patent the shoulder of contact between the sleeve and the nut itself is substantially midway of the angular portion within the sleeve?

(Testimony of John N. Wolfram.)

A. That's correct.

Q. And is there any clearance of any kind provided for expansion in the McConnell disclosure considering now the left-hand side of Figure 1?

A. There is no clearance shown.

Q. Is it true that when you use a soft pipe or a packing member, that the pipe itself or the packing member gives or is compressed by the action of the sleeve and the body member? A. Yes.

Q. And I take it you agree with Mr. Adams that the disclosure of the Bjorling publication—No. 19 in your book, your Honor—discloses no sleeve head angle?

A. No, it does not have a sleeve head [987] angle.

Q. And, likewise, does not disclose any initial or toe contact? A. That's correct.

Q. And, of course, that is for a lead or other composition pipe; correct? A. Yes.

Q. Turning now to Parker patent No. 1,893,442, which is one of the patents referred to by Parker in the patent in suit—No. 17 in your book, your Honor—does that disclose any angle on the sleeve head? A. No.

Q. Does it disclose any clearance between the sleeve head and the nut?

A. There is no clearance shown.

Q. Turning now to Parker patent No. 1,977,241—No. 18 in your book, your Honor—that was a file wrapper reference, was it not, to the Parker patent in suit? A. Yes.

(Testimony of John N. Wolfram.)

Mr. Huebner: It was. [988]

Q. (By Mr. Freeman): And the other Parker patent, No. 1,977,240, was specifically referred to by Parker in the patent in suit? A. Yes.

Q. Do you find any solid head or solid sleeve member in Parker patent No. 1,977,241?

A. No.

Q. Do you find any angle or tapered portion on the outside of the sleeve? A. No.

Q. That patent primarily is directed to take care of parts when they are misaligned?

A. That is correct.

Q. And you go along with Mr. Adams that the engagement between the sleeve and the nut is on a curved or arcuate portion, on a radius, so to speak; correct? A. Yes, on a section of a sphere.

Q. Have you recently made any tests or demonstrations of the devices like Parker patent 1,977,241?

A. Yes.

Q. Did you, at my instructions, take one of the AN sleeves and cut it out or remove metal therefrom so as to illustrate at least in principle of operation, Parker patent No. 1,977,241?

A. Yes, I have. [989]

Q. And did you then torque up the parts by assembling them together? And, if so, tell us what you discovered.

A. I torqued up a No. 6 fitting in steel, and the lower part of the sleeve, which corresponds to the numeral 15 in the 1,977,241 patent expanded out against the wall of the nut and also split.

(Testimony of John N. Wolfram.)

Q. When you say you torqued them up, did you then use normal torque? A. Yes, I did.

Q. And do you have that fitting here?

A. Yes, I have. Well, I don't seem to have the one I referred to here.

Q. Of the many fittings you have here, will you take one, hand it to me so it may be identified, and then tell us what your experience was with respect to that particular fitting? For the record, tell us just what you are handing me, by number or type.

A. I have here a No. 6 steel fitting, which I made in accordance with the 1,977,241 patent.

Q. And what did you discover as a result of bringing this fitting up to proper torque?

A. The sleeve jammed into the nut.

Mr. Freeman: I offer in evidence the fitting just referred to by the witness as Plaintiff's Exhibit 79.

The Court: It may be received. [990]

(The fitting referred to was received in evidence and marked Plaintiff's Exhibit No. 79.)

The Witness: Here is the tube that goes with that fitting.

Q. (By Mr. Freeman): Will you take another fitting and tell us what happened when you tested that particular fitting?

A. I have another fitting in aluminum which was formed in the same manner by reworking an AN sleeve and using the other AN parts—reworking the sleeve in accordance with the patent 1,977,-

(Testimony of John N. Wolfram.)

241. It was torqued and the sleeve has expanded out to the point where it is just about catching in the nut.

Q. And was that as a result of the initial torqueing and what we call normal torqueing?

A. Yes, it was.

Q. Did you actually make any measurements of the inside of the nut and the outside of the sleeve?

A. I made measurements of the outside of the sleeve, but I did not make them of the nut.

Q. And what report do you have?

A. On the No. 6 aluminum fitting with the copper silicon sleeve——

Q. Is that the one that you have just handed me? A. That is correct.

Mr. Freeman: I am going to ask the clerk to mark the [991] fitting Plaintiff's Exhibit 80.

The Court: Are you offering it?

Mr. Freeman: I will offer it in order to save time.

The Court: It may be received.

(The fitting referred to was received in evidence and marked Plaintiff's Exhibit No. 80.)

Q. (By Mr. Freeman): Now, will you proceed and tell us what data you have with respect to Plaintiff's Exhibit No. 80?

A. As initially machined, the lower end of that sleeve, corresponding to the 15 in the patent 1,977,241, was of a diameter equal to .4917. This is about 5.3 thousandths of an inch less in diameter than

(Testimony of John N. Wolfram.)

the front end or toe end of an AN sleeve normally is. This being a reworked proposition from a sleeve, it was necessary to take a little bit of the metal off at that point, so that we had a greater clearance to begin with at the toe end of that sleeve, or I should say at the lower end, corresponding to the part 15 in the patent 1,977,241, than we normally have in the AN assembly.

After torquing it up to the normal torque of 100 inch pounds, the sleeve was measured at this point through slots in the nut, and it then measured .5175 thousandths of an inch, which is an expansion of .0258 on the diameter.

The fitting was then taken apart and the sleeve was worked out of the nut and it was then measured again, and this [992] diameter was .05082 after disassembly, indicating that the sleeve had taken a set at this point of .0165 thousandths. [993]

Also, the angularity of the surface corresponding to the outer surface of the part 15 of patent 1,977,241—and by “outer” I mean the part that faces away from the body and not the part that is adjacent to the body as shown in Figure 3—the angularity of this surface was made—well, it called for 27 degrees on my drawing because that would make it an angular difference of 10 degrees, then, with the body member, the AN body member, the 10-degree angularity difference being taken from this patent 1,977,241 as shown in Figure 3, you will see that the body roughly has an angularity of 40 degrees; I shouldn’t say “roughly” but

(Testimony of John N. Wolfram.)

that is the angle of the cord of the spherical segment of the body, and the corresponding angularity of the sleeve is 50 degrees on the inner surface, and the inner surface is parallel or concentric with the outer surface. That is why I chose the angle 27 degrees for this particular sample. After assembly it was found that this angle changed so that it measured 32 degrees and 33 minutes on one side and 31 degrees 40 minutes on the other side.

Q. Is it fair to say that the thin portion below the part referred to by the reference character 10 actually flexed outwardly, the thin section?

A. Yes, the flexing started from a point just below the heavier section 10, and I have some measurements on that, too. The vertical part of the sleeve wall just below [994] the shoulder portion 10 on my initial sample was 3 degrees 10 minutes on one side and 3 degrees 28 minutes on the other side, to begin with, and these changed from 5 degrees on the one side to 18 degrees and 30 minutes on the other side.

Q. Now, with respect to patent No. 1,977,240, it too shows a shoulder on the sleeve and nut that is arcuate?

A. Well, initially the shoulder on the sleeve is straight across as shown in Figure 3, and I think that the shoulder on the nut is not arcuate but conical. At least, that is the way the drawing appears. I don't quite remember what the spec says.

Q. So as a result of that engagement, that is, of the conical portion on the nut against the shoul-

(Testimony of John N. Wolfram.)

der of the sleeve, the lower end of the sleeve head is actually driven in or compressed?

A. That's correct, as shown in Figure 5, the lower end of the sleeve swings inwardly because of the couple that is set up by the bearing point of the shoulder of the nut at the outer circumference of the sleeve shoulder, and the bearing between the small diameter of the flared surface of the sleeve against the base of the flare, and in swinging inwardly in this manner it loads the sleeve with hoop compression as contrasted to hoop tension. In other words, there has been a contraction here instead of an expansion.

Mr. Freeman: That is all. You may [995] cross-examine.

Cross-Examination

By Mr. Beehler:

Q. With reference to your last answer on patent No. 1,977,240, did you ever make up a coupling like that and test it? A. No, sir, I didn't.

Q. So that what you have said is a conclusion, rather than an observation?

A. Well, I was following the teaching or the explanation in the patent.

Q. Actually, isn't it true, Mr. Wolfram, that there would be a hoop compression only adjacent the shoulder and not adjacent the toe?

A. Oh, no. If the toe is going to contract as shown in the patent drawing, contraction automatically loads it with hoop compression, in the

(Testimony of John N. Wolfram.)

same manner that expansion would load it with hoop tension.

Q. Now, will you refer to Parker patent No. 1,977,241, about which you have just testified as having made a sample and as having tested. You said, I believe, that when that sample was drawn up under normal torque there was an expansion at the toe portion 15, the lower portion 15, I believe you called it. How much torque did you apply in inch pounds?

A. The normal torque which is used on AN fittings, which [996] is the torque which has been determined necessary for a seal on this particular type of tubing, type and size of tubing.

Q. How much is that?

A. No. 6, I would have to refer, I think, to the torque sheet, the AN torque sheet.

Q. Let's pass that question, then, Mr. Wolfram, and let me recall again the fact that I believe you said that the portion 15 expanded outwardly until it hit inside of the nut, is that correct?

A. Yes.

Q. And then when you unscrewed it and released it there was a return of that portion of about 9-3/10/1000ths according to my figures as you gave them?

A. Which one are you speaking of, the dural fitting or the steel fitting?

Q. Exhibit No. 80.

A. That is the dural fitting?

Q. Yes.

(Testimony of John N. Wolfram.)

A. About 9/1000ths is correct. I don't know what the 10ths come out.

Q. Wouldn't that return be enough to have the portion 15 pull away from the nut and release it?

A. Well, that depends upon how much the fitting or the sleeve has imbedded into the nut in the first place. [997]

Q. Well, having found that the sleeve expanded too much and the desire was not to have it expand quite so much, would you, as an engineer, cut the amount of metal in the part 15, reduce it?

A. If I wanted to obtain the advantages of the teaching of this patent, I would enlarge the nut, or do some other thing to take care of that situation.

Q. And it would be a perfectly obvious expedient, would it not, to add more metal to the part 15?

A. If you do that, then you don't have the teaching of this patent.

Q. And what is that teaching?

A. The teaching of this patent is for taking care of misalignment of tubing by shifting or by allowing the tube to swing on spherical seats.

Q. Supposing you keep everything, except that you make the thickness of the part 15 a little bit greater, would that not minimize the amount of expansion for the same torque that you used?

A. Well, it might, but the swinging out started and pivoted from the point just below the shoulder 10.

Q. Well, is it not true that the spherical surface

(Testimony of John N. Wolfram.)

11 and the surface 13 are the parts that permit that misalignment?

A. Oh, no. You have to have spherical surfaces on [998] both the—or, I shouldn't say both. You have to have them on the body, the tube, the sleeve, and the nut.

Q. Let's keep all of the spherical surfaces and just make the part 15 a little bit thicker. Isn't that a perfectly obvious thing to do to make it more resistant to expansion?

A. The part 15?

Q. The part 15.

A. Well, that is the question I just answered, that the swinging out started or pivoted from the point just below the shoulder 10 in the vertical part of the sleeve.

Q. Well, if we made that a little bigger, wouldn't it resist swinging out a little bit?

A. Well, if you made that part thicker, that being the pivot part, I am not so sure you would have any resistance, because you wouldn't have any lever arm at that point.

Q. If we made it thinner, it would swivel out a little bit quicker, then, wouldn't it?

A. I think the chances are if you vary the thickness, it would vary the characteristic somewhat.

Q. That is, if we made it thicker, we would make an altogether different invention, is that your conclusion?

A. Well——

Q. Is it?

A. I don't know what you mean by that. [999]

(Testimony of John N. Wolfram.)

Q. If we made the part adjacent the section 10, immediately below the section 10, a little bit different in thickness, we would change the character of the invention; is that your contention?

A. Yes. I think that that is something that this patent doesn't go into or disclose.

Q. Will you refer to the Benzion patent? I would like to read you from the first page of the patent, column 2, beginning line 81, the following:

“Furthermore, due to the loose fit of the flanges n, n, over the sleeve D, D and of the nut N, N over the shoulders or flanges d, d, and the engagement of the inner faces of the flanges n, n with the outer faces of the flanges d, d in planes perpendicular to the axis of the splice-core-duct C, the parts are permitted to adjust themselves and binding is avoided.”

Does that not indicate to you that a clearance was provided there in order to prevent a binding between the sleeve and the nut when the nut is unfastened?

A. At what point do you mean when you speak of “there”?

Q. The part that I just read.

A. There are two points, as I see it. There are two [1000] points of clearance between the sleeve and the nut, one along the smaller diameter of the sleeve D, D and one along the head of the sleeve next to the thread.

(Testimony of John N. Wolfram.)

Q. What I just read means a clearance at both places, does it not?

A. No. I think it means a clearance along the smaller part of the sleeve, because the description says:

“due to the loose fit of the flanges n, n”

and that is the in-turn part of the nut:

“over the sleeve D, D”

It doesn't say anything about the clearance at the thread.

Q. What about the rest of it,

“and the engagement of the inner faces of the flanges n, n with the outer faces of the flanges d, d”

A. “in planes perpendicular to the axis”

Q. “in planes perpendicular to the axis”

A. That would be the transverse of the shoulder engagement we have been speaking about.

Q. There isn't any clearance in the shoulder, is there?

A. It doesn't say there is a clearance. It says there is an engagement.

“the engagement of the inner faces of the flanges n, n” [1001]

All that means is a sleeve could slide straight across those shoulders.

Q. Let's suppose there is a clearance where you said there was at the small portion of the sleeve, and let's suppose there wasn't any clearance between the exterior of the sleeve head and the inside

(Testimony of John N. Wolfram.)

of the nut. How then would there be any adjustment possible?

A. Well, of course, there wouldn't have to be clearance at both places normally to have any side-ward shift, but here, of course, the nut is threaded all the way back, and the thread is opposite the head of the sleeve, and I don't know if he intended that the nut or the sleeve could ride into those threads or not.

Q. It is true, isn't it, you would have to have a clearance in both places if you were going to have any adjustment at all?

A. You could start with it in the thread or else make it as you pull your coupling up by slightly compressing the fine crest on the thread.

Q. If you didn't have a clearance there at both places, then you would have no adjustability, no freedom of movement between them, that is true, isn't it?

A. You wouldn't have any initial ability to move. It would have to make its own path in the region of the threads. That is what it means. [1002]

Q. You wouldn't have any at all, isn't that so?

A. If you have just the fine crest of the thread to contend with, just a hairline, the thread could quite easily flatten out there a little bit against the sleeve head, so that even though you might have a little bit of resistance to shifting, you could still have it.

Q. You said about Benzion in another connection you distinguished it as having a somewhat

(Testimony of John N. Wolfram.)

arcuate internal face on the flare of the sleeve and a somewhat concave arcuate effect on the nose of the body. Is that correct? A. Yes.

Q. Is that the invention that is present in the patent in suit? A. The -2,212 patent?

Q. Yes.

A. Having an arcuate face on the——

Q. Is it a fact that that does not have arcuate faces but conical faces instead, the invention?

A. No.

Q. You mentioned, with respect to the Guyer patent, No. 4, and it was not clear to me which of the two Guyer patents that was. Will you tell me?

A. It is the 196,084 patent. I don't believe the other one has any ribs that we spoke of. [1003]

Q. Very well. You mentioned that the feature of the Guyer patent which made it objectionable was the fact that there were ribs which caused the sleeve to bind upon the flare of the tube; am I correct?

A. Yes, the ribs would prevent withdrawal of the sleeve from the tube.

Q. Is it your contention that the invention present in the patent in suit consisted of the fact that those ridges are omitted?

A. No, I don't think that that is the teaching of the patent in suit.

Q. Now, with respect to the McConnell patent, you said, I believe, that in connection with Figure 1, the showing on the left-hand side, that there did not appear to be any clearance between the exterior

(Testimony of John N. Wolfram.)

of the head of the sleeve C and the interior of the nut D. That was your observation, was it not?

A. Yes, I said that the drawing did not disclose a clearance.

Q. Does the specification disclose that there was no clearance?

A. I would have to check the spec again to see whether it mentions anything.

The Court: Mr. Beehler, how much more time do you want this afternoon? [1004]

Mr. Beehler: Five minutes.

The Court: Do you want to come back here tomorrow?

Mr. Beehler: I would rather finish now.

The Court: You had better finish it real quick if you don't want to come back tomorrow.

Mr. Beehler: Very well.

Mr. Freeman: We will hold him to that five minutes, your Honor.

Mr. Beehler: I will be glad to pass the last question.

Q. (By Mr. Beehler): I will ask you would it not be necessary to at least have a slip fit between the sleeve head and the inside of the nut to get the parts together?

A. Well, you could have a line and line fit.

Q. If you had a lead tubing you would have no expansion, isn't that true?

A. Expansion of the sleeve, do you mean?

Q. Of the sleeve, yes.

A. No, I don't believe there would be expansion.

(Testimony of John N. Wolfram.)

Q. Then you wouldn't need to have any clearance in order to get the parts separated, would you?

A. No. And if you didn't have expansion you wouldn't have hoop tension and all its advantages.

Mr. Beehler: That is all.

Mr. Freeman: That is all, and plaintiff rests, your Honor. [1005]

The Court: I assume that you want to brief this case to the court?

Mr. Freeman: I would suggest that, your Honor. There have been many points raised by myself and by Mr. Huebner, and I would like to get back to where we have the library facilities, where we have the record in front of us, and if I may make this suggestion in order to save time, if Mr. Huebner goes along, I would be perfectly willing that we submit simultaneous briefs, or any way that your Honor wants it. We want to submit all the facts and present all the points to your Honor.

The Court: Fortunately I think you have plenty of time, because the court will not be able to consider this case until after the first of September.

Mr. Huebner: If the court had time, I would be willing to submit it without briefs and without argument.

The Court: I wouldn't advise you to do that. I think you had better brief this case.

Mr. Huebner: Well, then, let's file simultaneous briefs. We both know from this threshing out we have had the last eight or nine days what the points

are, and we might as well put in briefs and be done with it.

The Court: All right. Supposing you put in your briefs in 30 days, and if you want to reply, then you can put in a reply brief in 10 days. [1006]

Mr. Freeman: All right. I can do it that way, or—let's do that.

Mr. Huebner: I had in mind no reply brief. Let's file our briefs simultaneously, and that is it.

Mr. Freeman: I did, too. I may suggest, if I may, that I am driving back, and I won't get back for a couple of weeks, and I have been away from my office for five weeks and I am almost afraid to go back there because of the pile-up of work, and as long as your Honor won't be able to pass upon it until after the first of September, can we make that 60 days?

The Court: If you are not going to file any reply briefs, then you get your briefs in by the first of September.

Mr. Huebner: That will be fine.

Mr. Freeman: I want to take this opportunity to thank the court for its patience while we have been arguing.

The Court: I have been educated. I have been going to school, taking a postgraduate course in patent law.

Mr. Huebner: It has been a pleasure to be here, even during my vacation.

The Court: The case will be submitted, briefs to be filed by the first of September.

(Whereupon, at 4:20 o'clock p.m., the matter was submitted pending the filing of [1007] briefs.)

Certificate

I hereby certify that I am a duly appointed, qualified and acting official court reporter of the United States District Court for the Southern District of California.

I further certify that the foregoing is a true and correct transcript of the proceedings had in the above-entitled cause on the date or dates specified therein, and that said transcript is a true and correct transcription of my stenographic notes.

Dated at Los Angeles, California, this 6th day of July, 1950.

/s/ S. J. TRAINOR,

/s/ SAMUEL GOLDSTEIN,

Official Reporters.

[Endorsed]: Filed January 31, 1951.

[Title of District Court and Cause.]

Civil Action No. 7874-B

NOTICE OF INTENTION TO TAKE
DEPOSITIONS

To: Glenn A. Lane, 1151 Los Angeles Stock Exchange Building, Los Angeles 14, California;
Huebner, Beehler, Worrel, Herzig & Caldwell,
610 South Broadway, Los Angeles 14, California.

Sirs:

Please take notice that on Thursday, April 21, 1949, at 2:00 p.m., the Plaintiff in the above-entitled cause will proceed to take the depositions of: Frederick E. Amon, Jr., 17325 Euclid Avenue, Cleveland 12, Ohio, and R. H. Davies, 17325 Euclid Avenue, Cleveland 12, Ohio, and perhaps others of whom due notice will be given, in accordance with the Federal Rules of Civil Procedure, before W. E. Ferris, or other officer authorized by law to take depositions, at the offices of Thompson, Hine and Flory, 1122 Guardian Building, Cleveland 14, Ohio, when you may attend and cross-examine said witnesses if you see fit so to do.

The taking of the aforementioned depositions will be subject to adjournment from day to day until completed.

Dated this 6th day of April, 1949.

BAIR & FREEMAN,

By /s/ WILL FREEMAN,

By /s/ W. M. VAN SCIVER,

Attorneys for Plaintiff.

